

# RAILROAD GRADE CROSSING SAFETY ISSUES

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## HEARING BEFORE THE SUBCOMMITTEE ON RAILROADS OF THE COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE HOUSE OF REPRESENTATIVES ONE HUNDRED NINTH CONGRESS FIRST SESSION

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JULY 21, 2005

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## RAILROAD GRADE CROSSING SAFETY ISSUES

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**Thursday, July 21, 2005**

HOUSE OF REPRESENTATIVES, COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE, SUBCOMMITTEE ON RAILROADS, WASHINGTON, D.C.

The committee met, pursuant to call, at 10:15 a.m., in Room 2167, Rayburn House Office Building, Hon. Steven C. LaTourette presiding.

Mr. LATOURETTE. The Subcommittee will come to order. I want to apologize for being a little tardy. We were introducing some legislation on the data security breaches that are occurring all across the Country, at places like Designer Shoe Warehouse. So I am a little late.

I want to welcome all of our members to today's hearing on the subject of railroad grade crossing safety issues. Together with trespasser deaths, railroad grade crossing fatalities account for nearly 95 percent of all U.S. rail fatalities. Fortunately, the number of grade crossing fatalities per year have been declining. Since 1994, both rail and highway traffic have increased significantly, but the number of grade crossing fatalities has decreased by 46 percent.

As I have said many times, credit for the high level of safety on our Nation's railroad goes first and foremost to the hardworking railroad employees who strive to make safety an integral part of their difficult and demanding jobs. In addition, the Federal Railroad Administration has worked unceasing to enforce safety regulations and develop new technologies to prevent accidents. The Association of American Railroads has also been at the forefront of railroad safety research and education.

Today we are going to explore in depth the issue of railroad grade crossing safety. I am interested in learning more about the FRA's new regulations concerning locomotive whistling. Also hope to gain some feedback from the National Transportation Safety Board, AASHTO, and the DOT Inspector General. Each of these organizations has made safety recommendations in the past, and I want to know what progress we have made.

Finally, I hope that the Brotherhood of Railroad Signalmen gives us the view from the front lines. I know that the signalmen are called upon to test and repair grade crossing signals in the event of an accident, and I would like to hear from them what we can do to make our grade crossings much more safe.

Before yielding to Ms. Brown, I have one brief housekeeping matter. I would like to ask unanimous consent that all members would have 30 days to revise and extend their remarks, and permit the

submission of additional statements and materials by the witnesses. Without objection.

I now want to yield to our distinguished Ranking Member, Corinne Brown from Florida, and thank her. This hearing comes about as a result of a letter that she sent to me on May the 26th of this year expressing her grave concern over a number of safety issues that relate to America's railroads.

So it is not your birthday, but this is your hearing, and I would be happy to yield to the young lady.

Ms. BROWN. I want to thank you, Mr. Chairman, for holding this hearing on grade crossing safety. I want to welcome all of the distinguished guests and thank them for joining us today. I particularly want to thank Ms. Vicky Moore, from Angels on Track Foundation, for being here today, her and her husband.

Last month, the Department of Transportation Inspector General reported that the Federal Railroad Administration had made progress toward achieving its 10-year goal of fewer than 2500 grade crossing accidents and 300 fatalities. Grade crossing accidents are down from 5,000 in 1993 to about 3,000 in 2003. Fatalities also decreased from 626 to 325. Despite this progress, the number of deaths at crossings rose 11 percent in 2004.

While a few high-profile accidents have raised serious questions about safety and security in the railroad industry, the fact is that we need to do more on rail safety. We need to make sure our laws and regulations are effective, that they are being enforced, and that we are addressing the right problems. We need to look at whether the FRA has the necessary resources to do its job, or whether they need more inspectors or more funding.

Certainly, we need to pass an FRA reauthorization bill. We need to identify improvements that could further grade crossing safety and aid in reducing accidents and fatalities. And we need to look at FRA oversight capacity.

Last summer, the New York Times raised serious questions about accidents reported and investigations at grade crossings. Responding to this concern, I sent a letter, along with Ranking Member Oberstar, to the Department of Transportation Inspector General, asking him to review FRA oversight and inspection programs. I understand that Mr. Mead is prepared to talk about the audit at this hearing today, and I look forward to his statement.

Finally, I want to mention the issue of whistle bans. One of the first bills I introduced some 25 years ago at the State legislature would have mandated whistles at all railroad crossings, because I believe it is the best way to warn people and because I believe that everyone knows what the whistle means. I sympathize with those who are struggling with this noise, but the railroad built this Country, and those tracks have been there for over 100 years.

Finally, I want to say that we can no longer keep our head in the sand as it relates to rail security. This Congress and this Administration owes it to the American people to protect them. Even after the attacks in Spain last year and the attacks in London last week, we haven't moved to protect our railroad and transit systems. And sadly, we see it again today in London. We passed several so-called emergency funding bills for Iraq, but we can't even

get rail security legislation through the Committee. This is an absolute emergency we are facing, and we haven't done anything.

I hope that today's horrific attack in London will move Washington to act. This issue is very important to the American public, and I look forward to hearing from today's witnesses. And I yield back the balance of my time.

Mr. LATOURETTE. I thank the gentlelady. Until her opening statement, I was unaware that you could serve in the Florida legislature at the age of 15. But congratulations.

[Laughter.]

Mr. LATOURETTE. Mr. Miller.

Mr. MILLER. Thank you, Mr. Chairman.

This is a really significant issue in my district, which is the Alameda corridor. It is something that we deal with regularly; it is a gateway to trade for our Nation from the ports of Los Angeles and Long Beach. People throughout the United States and the world count on freight shipped through these ports via transcontinental railroad.

This is an economically vital corridor which runs through my district, with the possible distribution of billions of dollars worth of trade every year. In fact, more than 50 trains travel just in the Orange County sector each day, not including L.A. and San Bernardino that I represent, and it is projected by 2020 to go up to 135 trains per day just in that small portion of my district.

This corridor is vitally important to economic growth. We look throughout this Nation at the amount of goods that are shipped back and forth, and we acknowledge that it is beneficial to receive those goods. The problem we have is we fail to recognize that the at-grade crossings and lack of separations that we have in California have tremendous impact on the economy and people going to and from work; truck transportation and many other services we try to provide in California.

We also have a tremendous problem with quiet zones. In one city I have, I believe in five miles they have 12 crossings. In fact, in California we have 11,000 at-grade crossings total. But the impact on the community with trains entering these areas, when they start to blow their horns and they don't stop blowing them until they leave the community, it is just a tremendous impact to California.

Not only are we impacted that way, but the safety issue is huge. On January 26th of this year, 11 people were killed in Glendale, as many of you recall, when an individual parked his SUV on the tracks, left that; a Metro Link train slammed into that SUV, slid off the tracks, hit a parked freight rail car, and they also clipped a northbound Metro Link train at the same time.

In 2002, three passengers were killed in Placentia and some 260 were injured when crewmen aboard a freight train were chatting and missed a crucial yellow warning sign and slammed into the back of a Metro Link train. And in June of 2003 in our area, in the City of Commerce, six houses were destroyed—really nobody was hurt, and that was a miracle in and of itself—by a runaway freight train.

But in California there is about \$802 billion worth of goods shipped from California throughout this Nation is significant. The

only thing I hear more about in California locally than the impact on the Alameda corridor is illegal immigration. So that speaks boldly for the need to deal with this issue of freight movement. We have to move it effectively; we have to move it safely; and we need to ensure the quality of life and safety for the surrounding communities.

I am looking forward to the testimony from our Committee hearing today, and I thank the Chairman for your time. I yield back.

Mr. LATOURETTE. I thank the gentleman.

Mr. Blumenauer.

Mr. BLUMENAUER. Thank you, Mr. Chairman. I appreciate this being yet another example of the cooperation between you and our Ranking Member, Ms. Brown, to be able to get to critical issues that face the railroad industry. I will be brief, because I am looking forward to hearing from our former colleague, Senator Vitter, Congressman Kucinich, with whom I have worked on issues of livability and railroad impacts on his community.

This hearing, I think, is very important for us to be able to put this issue in perspective. We have been spending tens of millions of dollars to try to improve grade crossings. We have significant changes in the industry. We have closed thousands of crossings in recent years. What should be the accident rate? How do we interpret that? I am looking forward to the impressive list of witnesses that you have here, to learning from them.

I also understand that we have to balance the needs of growing communities with the demand of freight movement, and I appreciate what Congressman Miller was talking about in terms of the Alameda corridor, where we are all sort of tied into freight railroad movements in his district. I also understand that there are significant consequences if we were to shift a significant amount of this traffic to trucks, in terms of the environmental and the safety issues that would be involved there.

I think you have an excellent balance of witnesses that will help us get that perspective, and I look forward to the conversation today and what we can do to make sure we are balancing the responsibilities and opportunities for Federal regulation and responsibility with what the freight railroad industry does and what is happening on the ground with our various communities.

Mr. LATOURETTE. I thank the gentleman.

Mr. Simmons.

Mr. SIMMONS. Thank you, Mr. Chairman, and thanks to the Ranking Member for having this important hearing today.

I represent a district in eastern Connecticut, on the Rhode Island border, that hosted the first interstate railroad in America back in 1836, and the roadbed that was established back in 1836 from Providence, Rhode Island to Stonington, Connecticut is essentially the same roadbed today, except it hosts the northeast corridor for Amtrak and also hosts a certain amount of freight rail from Providence and Worcester.

Of all the at-grade crossings between Boston and New York, seven are in Connecticut; they are all in my district. Six of the seven are in my hometown. And this was an issue especially when the Acela train was deployed on this line: Would we close these crossings and provide separation through overpasses in a very his-

toric part of the State of Connecticut, or would we go to safety gates?

I advocated for quad gates. We have quad gates now. We have an outstanding safety record with those quad gates at a fraction of the cost of grade separation and overpasses, and no substantial damage to the historic features of the town. So I am here to advocate for safety gates and open crossings, where those are appropriate.

I will also say that Amtrak is considering a new line to Springfield, Massachusetts from the New Haven area, and that, of course, would raise the question of at-grade crossing safety for existing lines that are under-utilized and might be used to a greater extent in the future.

I think we all want safety on our rail system, whether you are riding the rails or whether you are crossing the rails. And any way that this Subcommittee can bring about that solution, I am happy to participate.

Thank you, Mr. Chairman. I yield back.

Mr. LATOURETTE. I thank the gentleman.

With the indulgence of those members who have yet to make opening statements, Senator Vitter has a vote at 10:45, and if it is all right with Mr. DeFazio and Ms. Norton and Ms. Carson, we will let the Senator testify, and then we will come back.

I would also like to ask unanimous consent, as we move forward with this hearing, to add to the first panel Vicky Moore, who traveled here to Washington on her own dime. And I think because of not only that fact, but the importance of her message, if it is all right with everybody, I would like Ms. Moore to testify after Congressman Kucinich.

So on our first panel this morning—and then we will resume opening statements—we are very fortunate to be joined by a member of the senior body, a former colleague of ours over here in the House—and his election to the Senate was a great loss to the Louisiana delegation here in the House of Representatives, but I am sure he is continuing his fine work in the United States Senate—we are lucky to have the Honorable David Vitter with us.

Senator, welcome, and we look forward to hearing from you.

**TESTIMONY OF DAVID VITTER, A UNITED STATES SENATOR FROM THE STATE OF LOUISIANA; DENNIS KUCINICH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO; VICKY MOORE, ANGELS ON TRACK FOUNDATION**

Senator VITTER. Thank you, Mr. Chairman, very much. And, Ms. Brown, thank you for convening this hearing. And as a former member of this body—and I think I am still a House member at heart—I would say I am now a member of the other body, not the senior body. It is great to be back over here breathing some fresh air.

As you may recall, when I first came here, I was a member of this Committee. Now that I have gone to the Senate, I am now a member of the Senate Environment and Public Works Committee. And I have really cherished those opportunities to work on critical transportation issues, including railroad safety for Louisiana and the Nation.

Unfortunately, in Louisiana, the story is pretty bleak. It has become an all too familiar occurrence, turning on the local news and seeing yet another accident involving a train-car collision at a railroad crossing.

Mr. Chairman, you mentioned that the statistics nationally have been getting a lot better. I wish that were the case in Louisiana. But we have one of the highest rates in the Country for collisions and fatalities, and it hasn't been getting better. In 2004 alone, Louisiana had 166 highway-rail grade crossing collisions, the third highest in the Country.

It is not the third highest per capita, it is just the third highest in numbers. And we ranked fifth in the number of highway-rail grade crossing fatalities, with 23 deaths in 2004. In 2005 already, just this part of this year, we have had 15 highway-rail crossing fatalities. So, unfortunately, we are on a pace to even go beyond that horrible 2004 number.

In addition to the incredibly tragic loss of life, these collisions have a high economic cost as well. According to a study conducted by the National Highway Traffic Safety Administration in 2000, these collisions have cost the citizens of just Louisiana an estimated \$5.7 billion, which accounts for 4.5 percent of personal income.

With this in mind, I have joined Senator Barbara Boxer in introducing S. 1380, the Railroad Safety Improvement Act of 2005, to provide all of America, including our States, the resources to close dangerous crossings and improve existing crossings to make them safer. The Railroad Safety Improvement Act will help end the tragic loss of life at these crossings by equipping States and local governments with the tools needed to make these crossings safer for all of our citizens.

It will do a number of things. First of all, the bill requires the U.S. Department of Transportation to work closely with States and municipalities to close one percent of all public and private grade crossings each year for a 10 year period. So that is obviously a total of 10 percent of those crossings. Priorities will be given to crossings that have the most danger and the least protective equipment. So these crossings will be ranked and will close the most dangerous 10 percent over 10 years.

I am very pleased that on June 30th, in my State, Louisiana Governor Kathleen Blanco signed into law a State law, Senate Bill 353, which gives our State the power to close railroad crossings deemed too dangerous. So these laws will dovetail with each other in my State of Louisiana to work very well with each other. The Louisiana Department says that at least 50 Louisiana crossings should be closed.

Louisiana has received \$3.2 million in railroad safety money from the Federal Government every year since 1987, and that amount has never increased. And I suspect that is a similar story for most States. Each year Louisiana spends another \$7 million of State money that combines to \$10.2 million. That is clearly not enough to do the job we need to do to close key crossings to make others safer.

Louisiana, California, Indiana, and Texas are the States that lead the Nation in collisions, injuries, and fatalities, but all States

have this problem to some extent. And under my bill with Senator Boxer, the U.S. Department of Transportation would award \$178 million in Federal grants to States for necessary safety improvements.

The Railroad Safety Improvement Act will also provide more than \$6.7 million for Operation Lifesaver, a national education and awareness program, with branches in 49 States, dedicated to education awareness to end tragic collisions, fatalities, and injuries. This group also promotes active enforcement of traffic laws relating to crossing signs and signals, and encourages continued engineering research and innovation to improve safety at crossings.

Between closing the most dangerous crossings, making safety improvements at many others, and dramatically improving our education outreach program, we can make all of our citizens a lot safer, and I look forward to working with all of you on this and similar legislation.

Mr. Chairman, Ranking Member Brown, all Subcommittee members, thank you so much for the opportunity to talk about this legislation. I look forward to any questions and, even more, look forward to working with all of you on these initiatives.

Mr. LATOURETTE. Well, Senator, thank you very much for making the trip to the other side of the Capitol and for your work. I know that all members of the Subcommittee and the full Committee will be anxious to look at your work with Senator Boxer. As you go back to the Senate, though, I note that you are a conferee on the highway bill, and anything you could do to sort of nudge your fellows to get us in agreement sometime before we leave in August would be greatly appreciated.

Are there any questions for the Senator before we let him go?

Senator VITTER. Mr. Chairman, I am doing a lot more than nudging, and I will continue to do that. I would also ask that Senator Boxer's opening statement be accepted into the record. I have that on her behalf.

Mr. LATOURETTE. Without objection. We thank Senator Boxer as well. And you go with our thanks.

Congressman Kucinich, by my count, we have about three more opening statements. Can you bear with us? Thank you very much.

Mr. DeFazio.

Mr. Westmoreland.

Ms. Carson.

Ms. CARSON. [not at microphone.]

Mr. LATOURETTE. Mr. Cummings, do you have an opening statement you want to make?

Mr. CUMMINGS. Yes, I do, Mr. Chairman. I will be very brief.

Mr. Chairman, I want to thank you for calling today's hearing to evaluate the state of grade crossing safety programs and procedures. The Association of American Railroads reports that there are more than 150,000 public railroad grade crossings in this Nation. These crossings dot our Nation's highways, creating dangerous intersections between fast moving trains and vulnerable cars, where an increasing number of motorists are dying.

Federal figures show that after years of steady declines in deaths at grade crossings, the number of people killed at these crossings increased by approximately 11 percent in 2004, over the number in

2003. Federal statistics show that there were more than 3,000 accidents at grade crossings in 2004, resulting in 368 fatalities. In fact, the total number of injuries at grade crossings has actually been rising since 2002.

An award winning series of articles published by the New York Times from July 2004 through February of this year has uncovered a number of disturbing findings about rail crossing incidents. For example, the November 2004 Times article reported that the Federal Railroad Administration had investigated four of the 3,000 rail grade crossing accidents that had occurred during the previous year. Other articles in the Times series uncovered unsafe practices and safety system failures that have contributed to accidents at grade crossings, and have identified incidents in which railroads have destroyed or tampered with evidence after accidents have occurred.

Unfortunately, it is not only the number of grade crossing accidents that is increasing. According to the FRA, the number of train collisions rose in 2004, to 259, an increase of 59 collisions over 2003. The number of train derailments has also increased, rising from 2,118 in 2003 to 2,263 in 2004.

Appropriately, the relationship between the FRA and the railroads it regulates has also come under increased scrutiny. The United States Department of Transportation Inspector General concluded late last year that the "partnership" approach to regulation currently utilized by the FRA is not ensuring that the railroads operate safely. In a report issued in December 2004, the IG also found that the FRA is not imposing sufficiently stringent penalties when safety violations are found.

The Inspector General required that the FRA develop a new rail safety action plan that would specifically assess when the partnership approach to regulation is no longer effective in ensuring compliance with safety requirements. Finally, the Inspector General also instructed that this safety plan should redirect field inspection activities and provide milestones for measuring progress and implementation of the plan.

I am eager to hear from the Inspector General whether he believes that the plan put forward by the FRA meets these high benchmarks.

Let me note that while today's hearing is focused on grade crossing issues, I want to point out that there appear to be other gaping holes in railroad safety, and I hope our Committee will be able to address those in future hearings.

With that, I yield back.

Mr. LATOURETTE. I thank the gentleman.

Mr. Bachus?

Mr. BACHUS. I thank the Chairman for having this hearing.

I would just like to make one comment when we talk about grade crossing accidents. This is one of the few cases in American jurisprudence when the public or public highways built over an existing railroad track, and, yet, if there is a collision between an automobile and a train, and basically on the property of the railroad, then we hold the railroad responsible. And there are times when that is appropriate, but there are many times when it is not appropriate, when the railroad has not contributed to the accident.

And I have often thought that if you were coming down on basic fairness, in about 90 percent of the grade crossings in America, the railroad track was there before the road, and either the State or the county or city, or even an individual, got permission from the railroad to build across that track, and it was implied, when most of that was done, that it was actually strict liability in many jurisdictions where that was located for them to safely get across the track.

So the railroads of this Country have assumed a tremendous amount of liability for the benefit of the public, and I think it is incumbent upon the Government, for the Federal Government on down, to do all they can do because of the benefit that the public receives to fund elimination of grade crossings, where appropriate, and fund overpasses, underpasses, things of that nature.

On our transcontinental railroads, the railroads every year pay out hundreds and hundreds of millions of dollars not only in judgments, but they pay out hundreds of millions of dollars in time delayed from accidents, many by people who are trying to beat a train to a crossing. And the railroad, when that happens, the least that it is going to cost them, if you are talking about a typical freight train crossing the Country, is 100 or \$200,000 in delayed time.

And, as I said, this is probably a case of where the track was there and the public, with no compensation to the railroad, built a road across it, then turned to the railroad at some later time and said protect the public as it crosses that crossing. And I think we ought to really revisit the law in this field.

There are obviously things the railroad needs to do from a sight distance standpoint and maintaining the condition of that crossing. But I am not so sure that, really, in equity and fairness, maintaining that crossing shouldn't be the responsibility of the Federal Government if they cut that right-of-way, or the city or the county or the State.

So, with that, I yield back any time. And I appreciate the opportunity to speak on it.

Mr. LATOURETTE. I thank the gentleman very much. His observation is a great segue to our next witness, my friend and neighbor from Cleveland, Ohio. Congressman Kucinich was instrumental in the last highway bill in recognizing that the best way to keep cars and trains away from each other is to build grade separations, and he was instrumental in bringing millions of dollars to the greater Cleveland area when the assets of Conrail were being acquired by the CSX and Norfolk Southern Railroads in making sure that the safety of his constituents were a top priority, and he continues to do that.

So, Congressman Kucinich, thank you for taking time out of your schedule to be here, and we would like to hear from you.

Mr. KUCINICH. Thank you very much, Mr. Chairman. I want to thank you, the Chairman, and the Ranking Member, Congresswoman Brown, for the opportunity to testify about railroad safety at grade crossings. I also want to thank each and every one of my colleagues on this panel for their dedication to these issues.

The daily onslaught of trains is a very important issue to my constituents in northeastern Ohio. In 1997, the Norfolk Southern

CSX buyout of Conrail, as originally proposed, would have more than tripled the number of freight trains through primarily residential communities in Cleveland's West Shore area, destroying much of the peacefulness and tranquility in a number of communities.

The large number of grade crossings and a likelihood that emergency services that needed to cross the tracks would be delayed as trains traveled through the area led me to express great concern for the safety of these communities, and, as a result, I had to intervene. A coalition of Federal, State, and local officials—and, I might add, with the help and leadership of Chairman LaTourette—worked hard to reach a negotiated settlement with the railroads.

The final train traffic agreement provided \$87 million in train traffic mitigation, primarily for the new construction of underpasses and overpasses, and a guaranty that 27 grade crossings would be installed, a guaranty that was completed in September of 1999, nearly a year earlier than expected.

And, again, I want to acknowledge that the Chairman of this Subcommittee deserves significant credit for this agreement, which, in a way, was one of a kind.

Of the many issues we faced, the fact that grade crossings are a significant challenge to safety was difficult to overcome. As some of the members of this panel, I represent an urban area, with a major rail line that runs 70 trains a day at a minimum. At rush hour, things do get hectic; people do take risks. That is a major cause of concern for me as I continue to push hard for grade separations in my district.

The challenge of grade crossing safety will grow even more because of the new Federal Quiet Zone Rule that allows communities to ban horns. In response to train horn noise concern, several cities in my district are actively looking to take advantage of this rule by meeting safety requirements.

I want to say, Mr. Chairman, that the FRA should be commended for their efforts to ensure safety and tranquility of those who live along railroad lines across the Nation. However, as I have indicated to the FRA, my support is contingent on strong mechanisms that ensure continued safety at grade crossings. I cannot emphasize enough the importance of continued train safety. Train noise is a serious concern, but train safety is a matter of life and death. Collisions increased 84 percent when train horns were banned at grade crossings and no additional safety measures were installed.

Now, if we ban train horns—and, again, I am someone who is all for peace and tranquility in the communities—we need to ensure that we do not increase the number of collisions. The Quiet Zone regulations must protect our children, and anything less is unacceptable.

Now, I have talked to the FRA. As a matter of fact, they were present in my district to provide public officials with an update on the evolution of the Quiet Zone Rule. We need to work very closely together because the FRA must continue to seek ways to fund grade crossing modifications in a manner that is not cost-prohibitive. And I am also encouraging the FRA to approach Congress with a plan to offer additional funding to help fund these projects.

And again, Mr. Chairman and members of the Committee, we really have to work to achieve a balance of assuring the movement of train traffic expeditiously through our districts, allow for the peace and quiet of the people who we serve, and also make sure that we uphold paramount concerns of safety.

I thank the Chairman and I thank the members of the Committee.

Mr. LATOURETTE. I thank you very much, Congressman Kucinich, for coming to share with us.

Does anybody have any questions of Congressman Kucinich before we move forward?

Mr. Westmoreland?

Mr. SIMMONS. I have a question. I agree completely with the issue of the whistles, that when you can get grade separation, you should be able to eliminate the whistles, although sometimes that doesn't happen for reasons that only the railroads can describe.

Your focus has been on separation. I tend to focus on grade crossings with quad gates, because I represent a more rural community than the community that you are talking about. Are there any applications for quad gates in your community?

Mr. KUCINICH. Yes. As a matter of fact, there are areas in my district that are less heavily populated, where the quad gates would serve to provide for effective safety and, at the same time, the FRA Quiet Zone Rule would ensure some peace and quiet for people who have been living along the tracks.

Let us face it, if you live in an area which is proximate to a railroad, the chances of you getting jarred out of your sleep are pretty good, and this is a real concern in many communities where people do treasure their peace and quiet. People want to support commerce with the railroads.

So our job here—and this Committee, with the leadership of Mr. LaTourette, is really on the right track, if we can say that—is that we achieve a balance. Those quad gates you talk about are part of that balance that you achieve. With a ban on train noise or the horn and then the quad gates, the trains can move through quickly.

But the FRA, to its credit, Mr. Chairman, I had the chance to meet with them and see the presentation. The FRA, to its credit is considering all these different variables and trying to actually create a solution for each community, because that is really what we are looking at. There are so many variations, and the FRA has actually created a program, Mr. Chairman, that communities can go into and kind of custom design their own solution. So this Committee is going to be very important in helping to facilitate that.

Mr. SIMMONS. Thank you, Mr. Chairman. Thank you.

Mr. LATOURETTE. Mr. Westmoreland, do you have a question you want to ask?

Mr. WESTMORELAND. Thank you, Mr. Chairman.

I live in a small town called Grantville, Georgia. The name of it was Calico Corners before the railroad came through, and the first conductor of the train was named Mr. Grant, so they named the town Grantville after him because they were so glad to have the railroad come through their town. And it was basically a railroad

town for a long time, with cotton and other agricultural products that were hauled from the area.

You mentioned communities and railroads and horn blowing. Horn blowing has always been a part of a railroad, I guess. I grew up in Atlanta, which was another railroad city, and constant horns blowing through there. But most of the communities, not only in Atlanta, but in Grantville and other small towns, have grown up around the railroads, similar to what Mr. Bachus from Alabama mentioned.

In Georgia we have real estate laws. If you are so close to an annoyance or something that could be an annoyance, I think within a mile or so, you have to make the buyer beware of what you are doing.

So is it your premise that if cities and counties allow communities to go in around railroads, that the Federal Government should come in and make for peace and quiet along those corridors?

Mr. KUCINICH. Well, the one fix that I alluded to that happened where people were concerned about 44 trains a day, as Mr. LaTourette knows, was in one of the most heavily populated residential areas between New York and Chicago, on the west side of the City of Cleveland. It is true that the railroad tracks came before some of those neighborhoods that grew up. That is absolutely true.

The charm of the rail horn is somewhat lost, though, when you are in a densely populated area. So what has to happen, I think, is that we try to strike a balance. And, actually, that is what did happen. But it was only with the cooperation of the Federal, State, the local government. And, I might add, it was bipartisan cooperation. That is the only way we could have done it. There was no possible way.

But you make a good point. Some communities, it is part of the lore, part of the history of a community. Still, because trains are faster and safety procedures are much more advanced today, we might be able to do things that will save lives, at the same time affect the orderly movement of commerce through our communities. We want to do both, actually, it is not one or the other.

Mr. WESTMORELAND. And the last question is on grade crossings. In my dealings with some of the railroads, in trying to get a grade crossing upgraded for development or whatever, their philosophy has been, well, if you will close down three, we will upgrade this one. And it seems to me, in thinking about what Senator Vitter said—and I didn't hear all of that—was he wants the Federal Government to pay to shut down some of these railroad crossings.

Isn't that kind of what the railroads want us to do? I don't think they want any grade crossings. If I was a railroad man, I wouldn't want any grade crossings. So why wouldn't we let them close down their own grade crossings, rather than us pay for them to be shut down?

Mr. KUCINICH. I think, the way I look at this, this is a decision that ought to come from the local communities first, in consultation with the railroads and the Federal Government—that is what we did—and the State as well, and to figure out a solution. The truth is no one wants to pay for it. But the fact of the matter is that occasionally a city might want to shut it down. But we have to al-

ways make sure that safety is paramount. So there is no one-solution-fits-all for this matter.

I think the FRA, Mr. Chairman, recognized that in its Quiet Zone Rule. Every member here in this room knows their district better than any other member. We know some solutions will work and some won't. And what I like to do is to leave it to the local communities to give me some solutions, because the last thing I want to do is to impose on any local community a decision relative to a grade crossing. And I don't think the railroads want to do that either.

Mr. WESTMORELAND. No, and I agree. I totally agree with you. But don't you think if you were going to close a grade crossing—let us say we were going to close one of the ones we have got in Grantville—couldn't we just go put some concrete barriers up or some of these nice decorative concrete things that we have got all around the Capitol and just close off the road?

Mr. KUCINICH. I think that both of us have an appreciation for aesthetics. I don't know if people in some of our communities have the same appreciation that we have.

Mr. LATOURETTE. Well, Congressman, I thank you very much for sharing your time and your thoughts with us today. It is invaluable as we move forward.

Mr. KUCINICH. Thank you, Mr. Chairman.

Our final witness on this panel, under my unanimous consent request, is Ms. Vicky Moore from The Angels on Track Foundation. As I, mentioned, she has traveled here to share her story with us at her own expense, and we are very appreciative of that.

I want to indicate I was very appreciative of the time you and your husband took yesterday to meet with Congressman Ney and I and, for the record, want to indicate that one of the things that constantly amazes me as we do this job in a variety of areas are the number of Americans who take a tragic situation and then dedicate their lives to making life better for other Americans. That certainly applies to you and your husband.

We appreciate your coming. We very much look forward to your testimony, whenever you are ready.

Ms. MOORE. Thank you, Chairman LaTourette, Ranking Member Brown, and members of the Subcommittee. I appreciate the opportunity to testify on issues pertaining to grade crossing safety. Our foundation was formed after our two sons were involved in a catastrophic grade crossing accident in 1995. Our youngest son, Ryan, and two others were killed.

The approach to the non-gated crossing was a steep hill, and overgrown vegetation restricted the view of approaching trains. I come to you not as a grieving mother, but as a representative of the thousands of families that have lost loved ones in grade crossing accidents and who collectively have no representation or national voice. In this role, I will share with you some of what we have learned in the hope that needed change will be forthcoming.

First, we have learned that following grade crossing accidents, it is automatically assumed that motorists are at fault because railroads have the right of way. But motorists' failure to yield is not the cause of accidents. Why they fail to yield is the cause. In some

cases, as courts have affirmed, motorists couldn't see or hear the train through no fault of their own.

Furthermore, many accidents occur in rural areas without eyewitnesses. Why should we rely solely on the railroads to identify causes of accidents that they themselves are involved in? When motorists are always blamed for accidents, self-anointed good drivers will have a false sense of security in approaching dangerous grade crossings. We respectfully request that Congress should require the FRA to disallow railroads from identifying what they interpret to be, without investigation, the cause of grade crossing accidents on their accident reports.

Second, we have learned that many unprotected crossings contain motorist sight obstructions on railroad property, obstructions that don't meet the standards of AASHTO or, in Ohio, State law. A few States have laws in this area, but they are inconsistent. It is illogical that while Federal legislation addresses sight distance standards for railroad operations, that there is no such law for protecting motorists. We respectfully request that Congress enact legislation that adopts AASHTO or similar motorist sight distance tolerances.

Third, we have learned that railroads are overly influential in matters of grade crossing safety. They have authored affidavits for public officials in judicial proceedings, have partnered with the FRA on safety teams in a manner that seems uncomfortably close, and have dominated Operation Lifesaver. Partnerships are formed out of common interests, but railroads and public regulatory agencies have natural areas of conflict.

It is an irony that we were denied a seat on Operation Lifesaver's Board of Directors because we were labeled advocates. Yet, their board is comprised of lobbyists, railroad personnel, and special interests. Yes, we are advocates, but for nothing else than public safety. We respectfully request that the Federal Government withhold its funding of Operation Lifesaver until its board is open to representatives of organizations such as ours.

Fourth, we have learned that the system is inefficient. Railroads are awarded sole-source contracts to install gates and their expenditures are rarely audited. Isn't this a violation of the most basic of business principles? Based on our review of railroad invoices, we suspect that the installation of crossing gates is a railroad profit center. Railroads should not make money from publicly funded safety improvements. We respectfully request that Congress require DOT to ensure that when taxpayer money is used to install safety devices at grade crossings, competitive bidding and auditing are required.

And, finally, we have learned that FRA and others have inappropriately taken much of the credit for the downward trend in accident rates over the past 30 years, when, in fact, the major factors were 25,000 new gate installations, closure of over 100,000 crossings, and downsizing and changing organizational structure of the railroad industry. Unfortunately, the accident rate increased in 2004 and dangerous crossings are plentiful throughout the Country.

We respectfully request that when FRA and Operation Lifesaver come before Congress during appropriation hearings, that they be

asked to show the value of their programs in ways that identify specific cause and effect relationships.

Grade crossing safety shouldn't be a Republican or a Democratic issue. It is about public safety and saving lives.

I thank you for the opportunity to appear before you today, and I will be pleased to answer any questions.

Mr. LATOURRETTE. Well, Ms. Moore, I thank you very much for coming here today and also for your testimony.

One of the things that you didn't mention in your testimony, but I know, is that one of the things that you and your husband and your foundation do are to help find and locate funds to install grade crossing devices. Can you tell the other members of the Committee that may not be familiar with that how that works and what good work you have been doing?

Ms. MOORE. Since 1997, the foundation has traveled the State of Ohio, going to different counties and talking with local county officials, establishing county task forces. The purpose of each county task force is to locally identify and prioritize the most dangerous crossings for upgrades.

Our foundation has set up a reimbursement grant program where we help fund, up to a certain percentage, the local match for installation of gates. To date, we have installed 14 sets of gates for over \$400,000 in the State of Ohio.

We also established an educational subsidiary called Crossing to Safety, which presents an unbiased, balanced message about railroad crossing safety and the actual causes for grade crossing accidents.

Mr. LATOURRETTE. I think, as I mentioned to you yesterday, and I think following up on some of the observations that Mr. Bachus made, the best way we can promote grade crossing safety is to make grade crossings safer. I talked a little bit about Congressman Kucinich's work, and other members will talk about the work that they have done, but I know that we have used TEA-21 to install gates and lights at every crossing in my congressional district. That was in the wake of tragic accidents that had occurred.

When you talk about bidding and costs, my recollection is that in that scenario—and I think we did 19 grade crossings—working with the Ohio Rail Development Commission as the funnel for the Federal money, it was about \$125,000 a crossing we experienced. What type of experiences have you had with price, say, from when you started to where it is now?

Ms. MOORE. We just installed three sets of gates in Medina County this past year, the prices averaged between \$175,000-\$200,000. I am going to use the time period from 2002 to just last year—they averaged anywhere from \$108,000 to the last crossings for the same equipment, same railroad, over 170-some thousand dollars.

The State issues an apportionment letter to the local community with cost estimates. The cost estimates can be over \$200,000. And that is something that we find hard to believe, that the cost of the gate installations have gone up that much. The costs prohibit communities from installing gates, which equals lost lives, because gates have been proven to be the safest form of protection.

Mr. LATOURETTE. And are you finding that when you help finance a gate, is the gate constructed by the railroad or is it constructed by a subcontractor of the railroad, or does it differ?

Ms. MOORE. What we have found is it goes both ways. In Ohio we have seen where the railroads are subcontracting out the work to second sources, and there is no competitive bidding required when they subcontract the work out.

Mr. LATOURETTE. Well, again, I want to thank you for your testimony, answering my questions. For the record, we will identify the good looking guy next to you as your husband, who is doing work with you as well. We appreciate your work.

I am happy to yield to Ms. Brown for any questions she might have.

Ms. BROWN. Once again, thank you, Ms. Moore, for the work that you are doing. Is there anything else you want to add for us about The Angels on Track Foundation? And, Mr. Moore, do you want to add anything?

Ms. MOORE. One of the most important issues we feel Congress can address at this point is it has been proven that gates are 90 percent effective in saving lives, but we know it is impracticable to have gates installed at all crossings because of current funding.

We recommend that a national rule be passed regarding motorist sight obstructions at crossings based on AASHTO and Federal Highway Administration standards to address vegetation and sight obstruction at crossings, because the motorist is required to yield. If you can't see down the tracks for an oncoming train because of sight obstructions, how can you yield to something that you cannot see?

It also should be pointed out that the Code of Federal Regulations currently requires the railroads to go down their tracks twice a week, inspecting their tracks. While they are inspecting their tracks, they can also be looking for sight obstructions at the same time.

Installing gates is the most important safety device our foundation promotes. Secondary to that would be eliminating sight obstructions at rail crossings so motorists can see.

Ms. BROWN. Mr. Moore, do you want to add anything?

Mr. MOORE. I think she does it all.

Ms. BROWN. Okay. One last question, Ms. Moore. Despite recent progress, the number of accidents, fatalities and injuries at grade crossings across the entire rail network have increased in 2004. If you could get Congress to do one thing you think that would improve the situation, what would that one thing be?

Ms. MOORE. I think we still, to this day, do not know what the actual causes for accidents are. We continually blame the motorists, without knowing the actual cause. I think installation of gates is a given; they are the safest form of protection device, but only 20 percent of the crossings in this Country have gates.

We should have the Department of Transportation do a one, two, or three year study where they actually determine what the causes accidents. Was the crossing obstructed with vegetation? Did the motorist drive inappropriately? Did the railroad follow safety procedures? Were the gates and lights functioning properly? These are all causes for accidents.

Until we honestly know what causes accidents, I don't think that we can address this issue. Currently we believe, based on personal experience with our older son who was driving the car, when there is this type of accident, it is always assumed it is the driver's fault. Had I been driving the car that day, the same thing would have happened. You couldn't see down the tracks and there were no gates to protect you.

So I guess that is my answer.

Ms. BROWN. Yes, Mr. Moore.

Mr. MOORE. Also, the accident report that is filled out after a railroad accident is sent in by the railroad. It would be like if you had a crash in your car with another car, there is no police, you fill out the report and send it in. You are not going to blame yourself. And this is what we found.

There is a case in Illinois where the signal system was not working, completely shut off, they had it jumpered out. FRA and the State officials filled out the accident report before an investigation, and blamed it on the driver. It wasn't the drivers' fault. The only reason they found out there was a problem was because they caught the railroad employee removing the jumpers. They actually had a camera because it was a new crossing.

This stuff goes on all the time. If you have FRA basically lying and you have the local officials lying about the crossings, nothing is ever going to change—you can do all the studies you want—unless you change the reporting-system of the accident report.

Ms. BROWN. Thank you.

I yield back to Ms. Carson for questioning.

Ms. CARSON. I apologize initially, I didn't realize that my microphone wasn't on. You were bowing up and down. I guess you didn't want to hear me talk anyway, and I didn't want to hear me talk anyway either.

[Laughter.]

Ms. CARSON. I was a member of the Indiana General Assembly in the 1980s. There was an organization called Operation Lifesaver who worked with us on the safety of railroad crossings. Does that group still exist?

Ms. MOORE. Yes, it does.

Ms. CARSON. Is it under your—it is independent?

Ms. MOORE. Right. It is another non-profit railroad safety foundation.

Ms. CARSON. Are any of those groups actually documenting the cause of accidents at railroad crossings?

Ms. MOORE. Operation Lifesaver, from my understanding, is an organization to educate the public. Unfortunately, we do not support their message because we do not feel they address all causes for grade crossing accidents. They primarily blame the driver or the motorist. They rarely address railroad responsibility for crossing accidents or railroad's shared responsibility for the safety at grade crossings.

Our foundation is also a privately funded railroad safety foundation; we are a 501(c)(3). We present communities and the people we talk to a balanced message. We understand drivers can make inappropriate decisions. But we also address other factors that cause

accidents, such as lack of protection, meaning lack of gates. Even if there are gates at crossings, they can and do malfunction.

Gates are required to work in a fail-safe mode, giving the motorist a minimum of 20 seconds warning. That does not always happen, and accidents have happened at crossings with gates. Blocked crossings. Railcars are not required to be reflectorized. I believe the FRA has given the railroads an additional 10 years to reflectorize all of their rail stock. We have families that we know that have lost loved ones at night, at unprotected, non-illuminated crossings because they ran into the side of railcars.

We believe education is important. We support Operation Lifesaver in part, but we do not support their message until they address the other side of the story, which includes inappropriate behavior by the railroads not following required safety procedures in addition to existing hazards at crossings that cause accidents, not just driver error.

Mr. LATOURETTE. I thank the gentlelady very much.

Ms. Carson, on the third panel the president from Operation Lifesaver will be here, if you maybe have some questions at that time.

Mr. Bachus.

Mr. BACHUS. I thank the Chairman.

Let me tell you my experience with grade crossings. And it is certainly not the personal, traumatic experience that you have, but I actually have represented probably 20 families in grade crossing accidents. And I think I still have the largest jury verdict in the State of Georgia, at least at the time I came to Congress. It was \$2 million at that time on a grade crossing case. So I am well aware that there are cases where the sight distance violates AASHTO standards, as they did in that case. And there was some other misconduct in that case.

I have represented the railroad. I have defended these cases. I am probably one of the few people in Congress that actually has five or six books that are on grade crossing accidents, and I have read the whole thing. It is a complex issue, but what I would say is very simple about it. And you said this. And I think whether it is Operation Lifesaver, you, anybody that is familiar with these things, they can all be eliminated, almost all of them, by separating the track from the rail; and that takes a lot of money.

Now, I can tell you that the railroads don't have that money. If you look at return on investment, railroads are at the bottom. If you take 100 industries in this Country, in fact, many of them many years lose money. That doesn't justify them not doing things right.

But I can tell you that in probably 95 percent of the cases—and this is every study that has ever had—there is some driver error. Now, I will say this. The sight distance, it sometimes takes a combination.

Also what people don't realize is with AASHTO standards, they sometimes require 300 feet before the crossing. And the average length of a right-of-way is 15 feet by the railroad. So you have got 15 feet of property that the railroad owns, but you have hundreds of feet that maybe some farmer owns.

Ms. MOORE. Can I respond to what you just said, sir?

Mr. BACHUS. Yes.

Ms. MOORE. We recently completed a pilot study in Huron County, Ohio to address sight distances along railroad rights-of-way. What we have found is that most local communities have no idea where the railroad property lines exist. We requested that the county engineer go to the tax plot maps and find out where railroad property and private property came together, and we found that railroad property measured anywhere from 33 feet to 75 feet.

In Ohio you have a sight distance requirement for vegetation clearance of 600 feet down the track, both directions, on railroad property. And what was happening was the railroads were coming in and clearing down the tracks, using the crossbuck sign, which is usually 10 to 15 feet out, and clearing. Well, that wasn't following the Code. The code said railroad property. Now, that meant, if it was 33 feet on both sides, clear 33 feet. If it went out 75 feet, clear 75 feet.

So I understand what you are saying, but I think you will find in most States the railroads are not clearing their rights-of-way.

Mr. BACHUS. The public isn't either, the private property owner, many times, too. We just had a case on eminent domain, where there is a lot of strong feelings about can you make a property owner do something on their property that is not in their interest. For instance, the railroads, they would probably not maintain half—they would probably clear about half the vegetation they do today if it weren't for sight distance requirements. And the cost of that is literally billions of dollars. And they do that for the benefit of the traveling public.

Now, it is a law; they are often required to do that. But what I am saying, the solution to this is—because the road, as I said to start with, the road was put in after the railroad track, in all likelihood—is for the public to put—and I will tell you. I don't know if trains were operating above 30 miles an hour at this crossing or not.

Ms. MOORE. The crossing where our son was killed?

Mr. BACHUS. Yes.

Ms. MOORE. Was 60 miles an hour.

Mr. BACHUS. Sixty miles an hour. And you had crossbucks.

Ms. MOORE. Crossbuck only.

Mr. BACHUS. And I will tell you that the city or the county that that is located in should have picked up the expense and they should have gates and lights at that crossing. To have crossbucks on a 60 mile track—now, in rural areas, it is very hard for a rural county to afford that, but if you have got a 60, you are talking about basically a transcontinental or interstate track.

And the only solution of a train going 60 miles an hour, you are going to have my children or, in your case, your children—I am scared to death of grade crossings. They are a tremendously dangerous place. Inattention. I have had a case where there were four young girls leaving a Christian camp, they were counselors at a camp. And they were laughing and talking.

The sight distances were—we were able to prove that they didn't meet the standards and the railroad was hit with a considerable amount of money. But they were also inattentive. But that is what

we all are. They weren't familiar with this crossing. They had been over it one time in their life; the second time they were dead.

But I can guarantee you that if you want to eliminate them, you put a duty on the governmental agencies to maintain those. And the cost of that is probably eight times what we are doing today, but we would save thousands of lives a year. And we have at least one fund that is set up to haul nuclear waste at some point to Nevada. When we start hauling nuclear waste, there is another reason to protect those crossings.

And what you ought to do on any 60 mile an hour crossing, with maybe—there are always exceptions, but every one of them ought to be protected, because somebody is going to get killed there, particularly when you have got a combination where you can't clear back 600 feet. Ninety percent of those you are talking about private property, and that is the reason you can't do it.

Mr. LATOURETTE. Could I ask you to sum up, Mr. Bachus?

Mr. BACHUS. But I very much know your children probably did nothing that we have not all done 100,000 times, and they just, unfortunately, were, you know, and I am very sorry for you. It has got to be a horrible time.

Mr. LATOURETTE. I thank the gentleman.

Mr. Blumenauer.

Mr. BLUMENAUER. Thank you.

I particularly appreciate your focusing on very specific things that you think will help make a complete picture and make the system that we have now work. Mr. Bachus raises an important point. We face risks every day, whether it is children bicycling to school, where there are no grade crossings, but there are problems with autos. Others have referenced problems with terrorism. I mean, there are a whole range of things out there that we would like to make our family safe and secure.

Your particular sort of hardheaded, clear-eyed testimony I think is helpful in terms of dealing with the system that we have got now, to understand it and to think about ways that we can expand upon it. And I just would like, if you would, briefly comment on the notion of how we equip ourselves to understand how to make the best of the partnership, acknowledging that this is a system that has grown up; the communities are different, the railroad industry is different, we don't have unlimited money, and time is of the essence.

Your testimony—and we are going to have some great things, I think, that are going to come forward from Mr. Mead. There are some interesting things from the Inspector General. We have representatives from the industry to talk about what they are doing and where we go from here.

But your focus, if you would, on ways that we have right now to make the system work better. I think your husband may have referenced just accident reports. It appears that there are gaps just in terms of getting the information out. One may question whether or not it is impartial if we are self-reporting. We can talk about that in protections.

But my understanding is that we are not getting all the reports that are due. You mentioned issues of right-of-way maintenance in your community, where there are questions that have arisen. Not

talking about whether it is perfect, but just this appears to—are there other areas that occur to you where we either can get more information based on how the system works or if there appear to be simple, common sense or legal requirements that would make a difference?

Ms. MOORE. The first thing that comes to my mind is a grade crossing is shared by a railroad and the public, which means the railroads have a shared responsibility for public safety. I don't think crossing safety should be looked at as only a local issue or just a highway issue. Railroads own part of the crossing, so they have a shared responsibility.

I brought up the fact that gates are the most important and most effective protection device. Yet, only 20 percent of public crossings have gates. If you can't install gates because of funding, then the next best safety enhancement would be to ensure motorists have clear lines of sight.

A recent National Transportation Safety study cited sight obstructions, I believe, in 57 percent of the studied accidents. They found that sight obstructions contributed to accidents.

I believe this hearing is about saving lives. If it is not, then I guess my husband and I are here wasting our time. I know had the crossing where my son was killed and his two friends, if it would have been protected with gates—and let us say the gates weren't working—if my son could have seen down the tracks, the accident would not have happened.

I believe secondary to installing gates it is imperative to determine the true causes for accidents, rather than assuming it's always the driver's fault. That starts with the accident report. There is a box that is filled out and it is marked failure to yield. Well, that is an assumption of blame on the motorist. So right off the bat the motorist has a failure to yield citation. Well, that is not telling you what caused the accident; that is the result of the accident.

I believe if you want to stop these accidents from happening, our suggestion was that the Department of Transportation do a study where you find out what actual causes are. If it is sight obstruction, then that is what you need to address and pass a national rule. There are no Federal sight distance requirements currently for public safety; they only address railroad operations. That, to me, is of utmost importance. There has to be a national standard all across the Country, uniform.

There is also a problem with crossing protection; there is no uniformity from State to State. If you can't have gates at crossings, then have uniform sight distance requirements. A rule giving motorists the ability to be safe, to see down the tracks for an approaching train.

So I guess sight distance comes to my mind.

Mr. BLUMENAUER. Thank you. I appreciate it.

Thank you, Mr. Chairman.

Mr. MOORE. Could I say one thing? The train crossings have been around for hundreds of years, and we still haven't installed gates or proper protection at all crossings. I think 100 years—we went to the moon. We have gone to a lot of places. But we still haven't protected our public at grade crossings. I just think it is time to do so.

Mr. LATOURETTE. I thank you very much.

Ms. Johnson?

Ms. JOHNSON. Thank you very much, Mr. Chairman.

I will ask unanimous consent to put my statement in the record.

Mr. LATOURETTE. Without objection.

Ms. JOHNSON. I was sitting here thinking, in my area we have had a real decrease in accidents, and when we first started light rail, the people indicated they couldn't hear the train coming. We do have a little whistle and we have the gates as well, but the accidents we had initially happened in spite of that. People thought they could beat the train, and it was a fairly rapid rail. They didn't find at any of those investigations that it was the rail system's fault.

And I know how frustrating that must be for someone who has an accident with a rail. I am just wondering whether or not there would be a way to determine whether it is the fault of the rail system when an accident occurs if you have lights blinking or any other sign. I am not trying to put blame anywhere, but I am trying to get around to asking a rather delicate question. What would you suggest that we look at to determine that it is not the pedestrian or the driver's negligence to get them on the track during that time?

Ms. MOORE. Well, I will go back to my earlier statement that your chances of coming to an unprotected non-gated crossing is more likely than coming to one with gates, because only 20 percent of the crossings in this Country have gates. And the crossing where my son was killed was not protected with gates. He didn't have the luxury of a gated crossing.

In my mind it goes back to the accident reports. That information is filled out by the railroads, which is then given to the FRA and the NTSB, who then come up with their safety statistics, and from those statistics they determine accident causes and policy changes. If you start with an accident report that isn't telling you what caused the accident, everything from that point on is not addressing the issue.

Do you follow what I am saying? So I guess that is my answer.

Ms. JOHNSON. Were there any signs at all, were there blinking lights?

Ms. MOORE. At the crossing where my son was killed?

Ms. JOHNSON. Yes.

Ms. MOORE. There was a—in Ohio we have two types of crossbucks: we have a regular crossbuck, which is just the sign that says Railroad Crossing and then we have "Buckeye" crossbucks, which have a reflectorized shield. They are supposed to pick up the ditch lights from the train. Our crossing had "buckeye" crossbucks, only a sign which does not tell you a train is coming nor does it protect you.

It had a 16 percent grade. You couldn't see down the tracks. It was like going down a tunnel. And as I had stated before, had I been driving the car that day, the same result would have happened, because there were no gates to tell you to stop, or warn you a train was coming, and you couldn't see down the tracks.

My older son who survived actually kept moving his car forward, looking to the left and the right. When he looked to the left, he

could see there was no train, but he couldn't see to the right, so he kept inching forward, the whole time looking. By the time he could see to the right, the train was to the left. Three seconds later, Josh, Allison, and my son Ryan were dead. That is what happened.

Ms. JOHNSON. Thank you very much. I am sorry that happened. I am trying to conclude in my own mind what we need to recommend for sure that would help to prevent such an accident. Thank you very much.

Mr. LATOURETTE. I thank the gentlelady.

We have been joined by Congressman Ney. Actually, the Moores are residents of Congressman Ney's district, is my understanding.

Mr. Ney?

Mr. NEY. Thank you. Thank you for letting me sit in here today. I wish I could have been here the whole time we talked and got to testify. I just wanted to—again, I am sorry for your loss, as we discussed before, the loss of your son. I think there several issues have been raised: how the reports are filled out and the safety issues.

I want to thank Congressman LaTourette for the hearing.

I think your being here today is worthwhile, and we want to look down the road to look at the issue in a total, comprehensive way. So I just want to thank you for being here today.

Ms. MOORE. Thank you for the opportunity.

Mr. LATOURETTE. I thank you, Mr. Ney.

And again, to both of you, I want to thank you very much. I would want to indicate to you I don't think your being here is a waste of time. I know I wrote down what it is that you are asking of the Federal Government. I am sure all other members did as well. And our challenge is to receive the rest of the testimony today and to figure out collectively and individually what we think we need the Federal Government to do.

I would follow up on some of Mr. Bachus' observation. I want you to know I heard what you said about Federal regulations for sight distances, but I think he makes more than a good point. When you deal with sight obstructions that have to do with curvature and topography and all variety of things that fall under the bailiwick of the locals and the States. I think you have given us a big bunch of information to chew on, and how we make all that work with all the interplays of the various local levels of government is going to be a challenge.

But, again, I thank you for coming and I thank you for testifying. I thank you for not only your testimony, but the exhibits that you attached to your testimony as well.

Mr. BACHUS. Mr. Chairman, I want to thank you for your courage. I think we have all seen crossings that are just inherently dangerous, and I strongly believe, after seeing these for 20, 25 years, that the public—the counties, the cities, the States—have got to be more forceful.

And I will tell you that when you set the gates and lights up, what you will have is you will have people knocking the gates down. And the railroad will pick up that expense. And it is a tremendous expense for them to maintain it. So it is not as if they are getting away without doing anything.

But I think there is a strong public obligation for the Federal Government and the State and the county and the city, first of all, not to—I have not seen this crossing, but I am going to assume from what I have heard from you that it shouldn't be in the state it is in. I think that is a safe assumption. And I think that the governmental bodies shouldn't be exonerated in this case.

Mr. LATOURETTE. Mr. Bachus, thank you.

Ms. Brown, do you have something?

Ms. BROWN. Yes. I just want to finally thank you once again for coming as my guests. I hope you know that your valuable time is very, very appreciated. We have all learned a lot from the amount of time that the Chairman has given you is a real learning experience, and we usually don't extend this much time. So I want you to know that we very, very much value your participation, your coming. And we are going to try to get some follow-through, in addition.

Mr. LATOURETTE. Again, thank you very much for coming.

Ms. MOORE. Thank you very much.

Mr. LATOURETTE. Thank you.

We will move to our second panel. And I would advise the second panel, as they sit down, we have been notified that a series of votes may occur in the next couple of minutes, but we will try to do as much as we can in the second panel before we move forward.

And on the second panel we are fortunate to have, I think on his maiden voyage of testifying, at least before this Subcommittee, the new Administrator of the Federal Railroad Administration, the Honorable Joseph Boardman. We are also fortunate enough to have the Inspector General from the Department of Transportation, the Honorable Kenneth Mead; and, lastly, the Acting Chairman of the National Transportation Safety Board, the Honorable Mark Rosenker.

So, gentlemen, we thank you all for coming. We have received your testimony and we have reviewed it. The lights, for those of you that haven't testified before, go from green to yellow to red. If you can confine your remarks to five minutes, we would appreciate it. And hopefully we can get your testimony in. I don't think we will be able to do testimony and questions before we have to break, but we would at least like to get as much testimony as we can.

So, Mr. Boardman, welcome. Thank you for being here, and we look forward to hearing from you.

**TESTIMONY OF JOSEPH H. BOARDMAN, ADMINISTRATOR, FEDERAL RAILROAD ADMINISTRATION; KENNETH M. MEAD, INSPECTOR GENERAL, DEPARTMENT OF TRANSPORTATION; MARK V. ROSENKER, ACTING CHAIRMAN, NATIONAL TRANSPORTATION SAFETY BOARD**

Mr. BOARDMAN. Thank you, Mr. Chairman.

Mr. Chairman and members of the Subcommittee, I appreciate this opportunity to appear before you on behalf of Secretary Mineta. This is my first hearing as the new railroad safety administrator of the United States.

I have found that grade crossing safety has improved dramatically since the mid-1970s. In 1975, there were over 12,000 crossing collisions and 917 deaths. In 2004, those numbers were 3,050 and

368 deaths, a 75-percent reduction in collisions and nearly 60-percent in deaths.

I found that the first safety action needed when I arrived seven weeks ago was to reject a request to delay the train horn rule from going into effect on June 24th. It was requested that I exercise my authority to issue an emergency delay of its implementation. For me, that would have been the wrong signal to send. I am told that emergency authority has been used only 23 times in the 35-year history of the FRA. I am not here to delay safety improvements, but, rather, to enable them.

Since June 24th, over 220 Quiet Zone corridors have been designated in accordance with the rule. In fact, most of the plans that FRA has received for the establishment of new Quiet Zones have included significant improvements to crossing safety.

This rule fits very well into the three Es of grade crossing safety: engineering, education, and enforcement. It has been since 1994 that Congress enacted the so-called "whistle ban" statute, directing the FRA to require the sounding of train horns at crossings, unless a community adopted one or more safety measures that satisfied the statute. The FRA was required to hold hearings and establish regulations that implemented the statute, and I am happy to say that has been done. And we look forward to making substantial progress in reducing deaths and injuries at grade crossings as a result.

Railroad safety is measured in numbers, as is anything we wish to improve: by knowing where we are, knowing where we have been, and where we are going. I expect today you will hear lots of numbers. And if you read the testimony I have submitted for the record, you will see lots of statistics. But I am not going to list those in my oral testimony because railroad crossing safety is about people, and not numbers.

One of the other things I found at the FRA is that they take every accident, incident, loss of life as serious. It is people that die or are injured. It is people that operate the trains, the trucks, the buses, the cars. It is people that trespass or cross as pedestrians. Eight hundred and fifty one of them lost their lives last year at crossings or by trespassing, and another 1,469 of them were injured. That is where the statistics come in. Because in 1994, 1,144 lost their lives, and 2,413 were injured.

I believe everyone agrees that it was a significant accomplishment, and it is people that should be complimented for that. It is many of the people that are here today; those that wrote the first crossing action plan in 1994, those who updated and published a new plan in 2004, and adjusted it again just this year, with the national inspection plan released in May of 2005; it is a Secretary committed to safety; it is Operation Lifesaver, and the Association of American Railroads and the Brotherhood of Railroad Signalmen; it is our IG, Ken Mead; and it is the National Transportation Safety Board and States and others.

But it is also members of Congress, those of you that are now being called upon to understand that in order to achieve even more dramatic improvement for the future, it will require difficult decisions, such as the train horn rule.

None of us should delay; not government at any level, industry, labor, or publicly interested persons in rail safety. The Secretary, through the FRA, has a plan for improvement, and the plan still includes engineering, education, and enforcement. But it also includes establishing responsibilities, improving data collection, conducting analysis and research, improving emergency notification, issuing safety standards, and evaluating results for effectiveness.

It also includes a shared responsibility with all five surface transportation agencies: the Federal Highway Administration, the Federal Motor Carrier Safety Administration, the National Highway Transportation Safety Administration, the Federal Transit Administration, and, yes, the Federal Railroad Administration. In addition, it includes supporting the Department of Homeland Security and the Transportation Security Administration as they achieve greater security for our transportation network and our citizens.

Thank you for your attention. Together we have made a difference. Together we will continue to do so. I am happy to answer or find the answer to any question you may have.

Mr. LATOURETTE. Well, Administrator Boardman, I thank you very much.

As the sound indicates, we now have a series of votes. And because of the nature of the Inspector General's testimony, I don't want to have it rushed or interrupted, so my predisposition is to recess at this time, have the votes, and come back. I apologize for the inconvenience, but if you just stand at ease, we will be back as quick as we can.

The Subcommittee will stand in recess until the conclusion of the votes.

Mr. BACHUS. Mr. Chairman?

Mr. LATOURETTE. Mr. Bachus?

Mr. BACHUS. I am just wondering if in this case—I know I am very interested in this testimony, and a lot of us have lunch events that we are going to from 12:00 to 1:00. I don't know when these gentlemen are intending on eating, but I am just wondering, because of the votes, if you would consider maybe a lengthier recess.

Mr. LATOURETTE. You want to have lunch?

[Laughter.]

Mr. BACHUS. You know, I want to have it all; I want to have lunch and I want to be here.

Mr. LATOURETTE. Well, how about 12:30? Is that enough?

Mr. BACHUS. Actually, I will be back at 1:00. If you keep it going until 1:00—

Mr. LATOURETTE. I tell you what. We will make everybody keep talking until you get back.

Mr. BACHUS. Thank you.

Mr. LATOURETTE. Okay. So that everybody can go get a bite if you want, why don't we plan on voting and being back in our chairs at 12:30?

[Recess.]

Mr. LATOURETTE. I call the Subcommittee back to order.

Our hearing is going to resume. When we recessed we had received Administrator Boardman's testimony. We now move to Inspector Mead. Thank you for being with us through the long delay. We are ready to hear from you.

Mr. MEAD. Thank you, Mr. Chairman. We have issued major grade crossing safety reports in 1999 and 2004, we have another one in process. Our testimony is largely based on that body of work. I am not going to review the statistics about this program except to say that in 1993 the Department set goals to reduce crossing fatalities and collisions by 50 percent.

In 1994, there were 626 fatalities and that has dropped to 332 in 2003. I think, if the truth be told, there are not too many programs in Government that require such a partnership of the governments, State, local, Federal, private industry, and so forth that can point to those types of results. I also think that Operation Lifesaver deserves a lot of credit here, and groups like the Angels on Track Foundation.

I very much appreciated listening to Mrs. Moore's testimony before the lunch hour. Last year, though, as a number of people pointed out, some ground was lost. Grade crossing fatalities tallies rose 11 percent to 368.

You should know that further progress is going to be more difficult. A lot of the progress has been what I would call "low-hanging fruit," a lot of that low-hanging fruit has been picked. A lot of that progress has come from closing thousands of crossings, literally getting rid of them, and installing automatic gates and flashing lights at crossings with a high probability for collisions.

Automatic warning devices though do not prevent all accidents. In fact, 49 percent of the accidents that occurred over the last five years happened at crossings that, indeed, did have active warning devices. Railroad accident reports attribute about 90 percent of crossing collisions to reckless or inattentive motor vehicle drivers rather than the trains or broken crossing devices, a point I will come to later.

I think, we watch this program pretty closely, to its credit the Department is continuing its focus on grade crossing safety. They have issued new safety rules requiring reflective stickers, strengthening requirements for sounding horns, improving locomotive event recorders.

Last year's news reports raised questions about the reporting and investigation of grade crossing collisions. Representatives Oberstar and Brown, Senators Hollings and Inouye and, also Senator Lieberman had some interest in this matter. Our work is not yet complete, but I want to preview for you three findings relating to one, accident reporting; two, crossing collision investigations; and three, safety regulations enforcement. We find clear room for improvement in each of those areas.

The first area. We found that the railroads failed to report 21 percent of serious crossing collisions to the National Response Center. FRA can clearly do more to enforce that reporting requirement. The 21 percent of serious crossing collisions is a big number, that is a fifth.

Railroads are required to report serious crossing collisions to the National Response Center immediately so the Federal Government can properly respond. Our analysis showed that 115 of the 543 crossing collisions that occurred between May 2003 and December 2004 should have been reported to the National Response Center

but were not reported at all, let alone being reported in a timely way.

These collisions were ultimately reported to a separate database at the Federal Railroad Administration within 30 to 60 days after the collision. But in our view, that is too late to allow the Federal authorities to investigate the accident or otherwise take prompt action. The good news here is that FRA has begun reconciling its own database with that of the National Response Center and has told us that they now plan to start penalizing the railroads when they do not report.

Now part of the under-reporting problem stems from deaths that occur after the accident; somebody gets seriously injured at the accident, the ambulance comes, they go to the hospital, they die at the hospital, they do not get reported because they did not die at the actual scene of the accident. There is also some confusion over what should be reported in the first place.

I want to point out here we do not have any evidence that the railroads were deliberately covering up data, deliberately not reporting it. We think there is some clarity that needs to be brought to reporting requirements and we think there are some fairly easy fixes here. Certainly, somebody that dies in a hospital as a result of a grade crossing accident is dead just as surely as somebody that dies right on the scene.

Point two. The Federal Government investigates very few crossing collisions. This is much different from other areas in transportation, such as aviation. We think FRA needs to develop strategies to increase its involvement in investigations. We found that FRA investigated 9 of the 3,045 crossing collisions that occurred in 2004.

Specifically, they investigated 47, or 13 percent, of the 376 most serious crossing collisions that occurred in the last five years. So this is not just something that has been going on for just one year; it is a five-year pattern. No Federal investigations were conducted for the other 329 serious crossing collisions.

FRA told us that the National Transportation Safety Board is the lead Federal agency responsible for investigating accidents, not them. That may be true. NTSB tends to investigate only the most high-profile crossing collisions, and conducted seven crossing investigations from 2000 to 2004. Now the real important point here is that because the Federal Government does not independently investigate most of these collisions, the information that FRA gets concerning the causes comes almost exclusively from self-reporting by the railroads.

The railroads' accident reports, as I said earlier, attribute about 90 percent of the collisions to motorists, and FRA usually does not conduct its own investigation to verify those findings. I think there are some things they can do here. For example, they do not routinely review the event recorder data, that is the locomotive's event recorder, they do not routinely get the State and local police reports of the accident, and they do not routinely get the State railroad inspectors' collision reports.

We believe that collecting information from those other sources about crossing accidents would improve their ability both to understand qualitatively the causes of the accident, and also to help bet-

ter target investigations of those accidents it decides should be investigated.

Final point. We think FRA ought to beef up its enforcement of grade crossing safety regulations. FRA identified over 7,490 critical safety defects related to railroad crossing signals from 2000 to 2004, that was out of about 69,405 problems they identified related to crossings. So 7,490 critical safety defects, they recommended only about 5 percent, or about 347, of these for violations, which carry a fine. These defects among other things, include the failure of a signal to activate or the failure of a railroad employee to repair a signal malfunctions in a timely manner. FRA collected only \$271,000 in fines from all railroads in 2003 for grade crossing signal violations.

I think they need to consider whether the small number of violations and the low amount of fines sufficiently encourage railroads to better comply. I want to note that this year, almost contemporaneous with the issuance by the Department of a National Rail Safety Action Plan, FRA assessed one railroad \$298,000 for grade crossing safety issues related to a single accident in the State of New York.

That fine was larger than the total of all crossing signal fines imposed upon all railroads in 2003. A penalty of that size I think will get the attention of the railroads. Thank you.

Mr. LATOURRETTE. Thank you very much, Mr. Mead.

Now the Acting Chairman of the National Transportation Safety Board, Mark Rosenker. Thank you for being here, and we look forward to hearing from you.

Mr. ROSENKER. Thank you, Mr. Chairman. Good afternoon, Chairman LaTourette, Ranking Member Brown, and distinguished members of the Subcommittee. Thank you for the opportunity to testify before you on behalf of the National Transportation Safety Board. All agree that grade crossing accidents are tragic events and we appreciate the serious attention that this Subcommittee is devoting to this important safety issue.

The Safety Board has long been interested in the adequacy of a train's audible warning system to alert motorists of the train's presence at grade crossings. We have examined this issue in a variety of accidents and not that while horns can be effective, they can also fail to communicate the intended warning. The sound of a train horn is an effective warning only if the driver recognizes it as a train horn and takes the appropriate action. This recognition is affected by noise levels inside the vehicle and by the soundproofing designed to cut down outside noise.

In 1986, the Safety Board conducted a study of passenger/commuter train and motor vehicle collisions at grade crossings and found that in 27 of the 75 accidents investigated the occupants of vehicles could not hear the audible warning system of the train. We concluded that train horns should be improved to better address that audibility concern.

The Safety Board has been particularly concerned with the potential for grade crossing accidents involving school buses and the sound dampening characteristics of these vehicles. We have investigated two school bus accidents of special note—Fox River Grove, Illinois in 1995, and Conasauga, Tennessee in 2000. Audibility

tests conducted in conjunction with these two accidents helped frame the nature of the problem.

Research has shown that detecting a sound will not lead to appropriate action unless the sound is identified or has reached the alerting level. If a sound is to be identified, the warning signal must be three to eight decibels above the threshold of detection. If a sound is to reach the alerting level, the warning signal must be approximately 10 decibels above ambient noise. In the Fox River Grove accident, our tests indicated that the train horn did not exceed ambient noise levels until 1.1 seconds before impact. In the Conasauga accident, the driver had difficulty detecting the train horn at all.

In a 1998 safety study, the NTSB tested the audibility of a train's horn within 13 passenger and emergency vehicles. When the windows were closed and the engines were idling, the sound of the horn was loud enough to alert the drivers of 5 out of 13 of the vehicles. When fans were turned on, the horn was not audible at all in seven of the test vehicles. Nevertheless, the train horn is an important part of grade crossing safety. It should be sounded unless other actions are taken that act as an effective substitute at crossings.

In an effort to find such effective substitutes, the NTSB issued a recommendation to DOT to develop and implement a field test program for in-vehicle safety and advisory warning systems, variable message signs, and other active devices, and to modify those applications for use at passive grade crossings. These technologies, particularly in-vehicle warning systems, can help enhance safety at passive grade crossings. Such in-vehicle warning systems are a potential solution to the audibility problem that drivers encounter.

The cost to eliminate or upgrade passive grade crossings is high. However, even expensive gates and lights do not completely eliminate the hazards at crossings. The ultimate solution from a safety standpoint would be the construction of bridges or underpasses that eliminate grade crossings. However, in our 1998 study, the Board recommended that a viable, less costly remedy is to install at passive crossings STOP and STOP AHEAD signs. By placing a stop sign at a passive crossing, a clear, unambiguous message is sent to the driver so that the driver knows both where the crossing is and what action must be taken.

In response to that safety recommendation, two organizations have proposed combining the crossbuck sign with either a stop or a yield sign, and FHWA is considering issuing interim guidance on this issue to the States. This is a positive step and I look forward to seeing the final guidance put forth by the FHWA.

Thank you, Mr. Chairman, for the opportunity to testify. I am available to answer any of your questions.

Mr. LATOURRETTE. Chairman Rosenker, we thank you very much for your testimony. Thank you all for your testimony.

I want to clear up something with you, Mr. Mead, before I go on to some other questions. That 21 percent is a pretty big number, as you indicated, and my question is, are the railroads failing to report 21 percent of all accidents at-grade, or are they not reporting them to all of the agencies that they are required to? Do you understand my question?

Mr. MEAD. Yes, I do. There is an FRA database that they are reporting to. That is not the National Response Center database. The National Response Center database is one that is supposed to be reported to immediately when the accident, or grade crossing collision in this case, meets certain criteria that are defined. That was what the 21 percent figure referred to.

Mr. LATOURETTE. So are they reporting to the FRA but not filing the same or a similar report with the National Response Center, or are they not filing even with the FRA?

Mr. MEAD. No, they are filing with the FRA. Their problem is that the National Response Center report is supposed to be filed promptly so it gives them a chance to take a look at the profile of the accident, decide what they want to do about it. If you have an accident on July 1, for example, you have until August 30 to report it to the FRA. The National Response Center will get a report of that accident on the very day of the accident, if everything is operating correctly.

Mr. LATOURETTE. Okay. Is there, and maybe your analysis did not go this deep, do you find that for most of the reporting to the FRA they take the entire two months? I guess I am asking is this a matter of maybe the FRA should be sharing with the National Response Center, or is this, if they get 60 days, they take 60 days to report, whereas if they were reporting to the National Response Center, as you said, we would have it on the day of the accident, or shortly thereafter?

Mr. MEAD. I do not have a detailed analysis as to how long they take. I can tell you they do not report to FRA in enough time for FRA to take prompt action or to decide whether it itself wants to go and investigate. The NRC database, I really think the fix on this issue is pretty straightforward. It would require them, if you have a serious injury at a grade crossing collision, just to report that instead of making it hinge on whether they die at the hospital or they die on the scene. That would not be inconsistent with the criteria they have if a train crew member, for example, received an injury in the accident.

Mr. LATOURETTE. Right. And the thing, Chairman Rosenker and Administrator Boardman, a lot of things strike me about the Inspector General's report, but it is this lack of investigations I think, and maybe if you could comment on that. I had, although it was not an at-grade crossing, but the parents of the engineer who perished in the crash down in South Carolina came to visit me a couple of weeks ago and expressed concern, similar to the concerns that the Inspector General has expressed, that why do we not have a National Transportation Safety Board investigation of the facts.

And if you are conversant with that accident, you can talk about that accident, but just in general, when the Inspector General says over five years or whatever the figure was. I guess your agency is most famous for when there is a plane crash everybody is all over television. So do we have to have 130 people perish in one accident before we get an investigation? Or how do you do it and why are there not more?

Mr. ROSENKER. Mr. Chairman, I would love to see our organization at every single train accident. Unfortunately, the assets and the resources that we have within our organization will not allow

us to do that. Approximately 20 of the say 3,000 railroad accidents that occur every year are investigated, and those are high visibility accidents. We have to go to those. Clearly, when you are involving an Amtrak or a passenger train in any way, shape, or form, we will investigate that. I assure you, we would like to investigate more. But with only 14 investigators on the staff, we do not have the resources to be able to accomplish that.

By law, we must investigate every aviation accident. And we have significantly more aviation investigators than we do in other modes. But, as I say, sir, we would be very, very pleased, we would be thrilled to have the opportunity to investigate and prevent these types of accidents. But it is really an issue of sheer numbers against the resources that we have, sir.

Mr. LATOURETTE. Okay. I thank you for that.

Administrator Boardman, I think that resources is an important point to make. I would bet you would make a similar argument about the FRA, and I know you have only been there for seven weeks. But I am troubled that, as we talk about resources and everybody in every department will tell you there are scant resources, my experience with transportation bills is that the highway guys want all the money to go to highways, the train guys want all the money to go to trains, and the transit people want all the money to go to transit. But in both the House and the Senate iteration of the ISTEA program that we are now struggling with, the Administration has made observations that I find troubling.

Basically, the Administration position on both the set-asides for Operation Lifesaver and also for improvements of grade crossing safety devices in the States is criticized as not giving States sufficient flexibility to use it for other stuff. Specifically, I will just read to you quickly, "The Administration objects to the set-aside provisions in the Senate bill that reduces State flexibility. The Senate bill would set aside \$938 million for grade crossing safety, although grade crossing fatalities account for less than 1 percent of highway fatalities nationwide."

And it goes on to make a similar observation about the House bill, it sets aside \$1.7 billion over five years, and basically says, "Because of all the accidents that occur in the Nation, only 1 percent of these are at-grade crossings," so we should not tie the States' hands and say they cannot use this \$1.7 billion in the House bill only for grade improvements, and almost \$1 billion in the Senate bill.

Are you able, and again I know you have just got the job so I know you did not write this, but are you able just to comment on that generally and maybe tell me why my concern that we cannot even take \$2 billion over five years just to make these things safer is not a good idea?

Mr. BOARDMAN. Mr. Chairman, I think that the philosophy behind the set-aside resistance really has to do with the philosophy that says a State has to have maximum flexibility to use the money where it sees fit. It is not a whole lot different than the train rule when we are looking at the train rule to have each community begin to identify where its priorities really are and what kind of protection it really wants to put up there. They are looking for

States to find the places that they think the priorities are to save lives. And so the Administration is looking at that.

One of the things that occurred is that the total amount of money that became available for safety was increased and then that flexibility was offered to the States to, hopefully, if the rail advocates and those that want to improve grade crossing could get more of those dollars to make those improvements.

Mr. LATOURETTE. Okay. I appreciate that answer. My inclination is maybe to do a second round because I do have questions of you on the whistle program. But I would just say that I am all for States' flexibility. I am a Republican, I am supposed to be a States' rights guy.

But I will tell you that if in these transportation bills we did not have a set-aside for air quality mitigation, I do not think the States would do it; if we did not have a set-aside for the preservation of green spaces, I do not think the States would do it; and likewise with these grade separations, I have to tell you that unless we say you cannot use this \$2 billion for anything but making these grade separations closer, I think, at least in my State, and I am not criticizing my Department of Transportation, but I think they would say we would rather add a third lane on I-71 than do this. So on this, I think I have to respectfully disagree with the Administration position.

I yield to Ms. Brown.

Ms. BROWN. Thank you, Mr. Chairman. In my State, we will take it and do a tax rebate or something.

[Laughter.]

Ms. BROWN. I have a question. It seems that 91 percent of the collisions cited, Mr. Mead, are caused by the driver of the vehicle, although the railroad gives the account of what happened and what caused the accident. I would like to ask each one of you, and I think you have touched on it, but what are some of the things that we can do to ensure that we are getting an accurate picture of what happened in the accidents, and how can we improve it?

And the fact that we do not report unless someone gets killed at that point certainly is something that needs to be corrected. If it is a serious accident, then we need to report it. If each one of you could respond.

Mr. MEAD. I will take a shot at it first, since I brought it up. I think one clear thing you can do is you want a more complete portfolio of information about the accident. Whether FRA ultimately can take the resources and investigate more than 9 a year or not is one issue.

But certainly they can require a more complete reporting of the accident. If you are going to ask the railroads who was at fault in this accident, or can you explain circumstances of the accident, you are likely to receive something that is an exposition of the situation in the light most favorable to the railroad. If someone asked me if I was in an accident, you know, Mr. Mead, would you explain the circumstances of this accident, I would explain it in the light I think most favorable, as I think most everybody in the room would.

I think at a minimum, let us go after the State and local police reports, they are right there on the scene; the event recorder in the locomotive. These are things that already exist that would not cost

a lot of money to capture. And I think that if we got that information, we would be in a better position to act on what Ms. Moore's suggestion was earlier, she was talking about a study of causation, I think this would be an opportunity to look at it prospectively once you get a complete package of information.

Mr. ROSENKER. I would agree with the Inspector General. But in addition to that, I would go back to what I had stated earlier in my testimony. It is interesting, there were a number of studies done about seven, eight years ago indicating that people did not really know what to do when they came upon a crossbuck. People know what to do when they see a stop sign, they know what to do when they see a yield sign, but I could probably ask every person in this room what should you do when you see the crossbuck and I would probably get about six or eight different answers. That is a lot of our problem here.

The recommendations we made to DOT was to install, at the State level and local level, stop signs in conjunction with these crossbucks. At least you know what to do when you see a stop sign. You will stop, hopefully. But unfortunately, even in some of those cases where it is obvious, people will ignore the crossbucks, they will go around the gates, they will zoom by at 40 or 50 or 60 miles an hour. And the laws of physics at that point dictate what the result will be. A very, very fast moving train will just destroy a motor vehicle. Thank you, ma'am.

Mr. BOARDMAN. I think one of the things that I began to look at in this short period of time in trying to understand this issue was that we were not in this thing alone. It was not just the IG—and the IG has been very helpful, by the way. Just two months ago in May, just before I got here, the FRA clarified what the reporting requirements would be for grade crossing accidents to the National Response Center.

So that, and I think you identified that, Ken, we have already begun to reduce that kind of a problem within the agency; the agency took an action right away. And I think the NTSB is exactly right when they talk about the need to change the way that we identify passive crossings, whether it is crossbucks and you have a yield sign or whether you have a stop sign. And so we are in the middle of really talking that out with our other partners, which are the Federal Highway Administration and those who control what is called the "MUTCD", or Manual of Uniform Traffic Control Devices. I got it right that time; I was not sure I was going to.

But the fact is that people do not understand today what those passive crossings are really about. In fact, I am going to tell you that people do not know you are supposed to stop and yield to turn right at a stop sign, and they just go around the corner. You are supposed to stop and yield.

So I think as the increase in train traffic, as you talked about a little bit earlier, has occurred, so has the amount of vehicular traffic out there, and the difficulty of doing that one "E," that education piece, is becoming more and more difficult for all of us. So we see those difficulties.

We also see this as a highway crossing. It allows the highway to cross the railroad. Those accidents are investigated, and they have been identified as being investigated by the local police and by the

community that the accident occurs in. We have had programs, and continue to have programs, with liaison with police departments, to try to teach them what they need to look for to make sure that those investigations go right.

And I think there is an important point that the IG has brought up about these reports. We are trying to think about that, and we are not adverse to changing those reporting requirements in some fashion. We would like to look at that. There is no "Cause" box actually on a crossing collision report. There are on the other reports for accidents with the railroads, but not on that one. You have to infer what happened from what is being said on the report.

But maybe there is a way to put a box on there from the police department report to say what the cause was or at least to start in that fashion, and we will look at something like that to try to make that improvement.

Ms. BROWN. Thank you. I yield back my time. Maybe we will have another round.

Mr. LATOURETTE. Yes, we will. I thank the gentlelady very much. Maybe while you are educating people you could teach people what the passing lane is for as well.

[Laughter.]

Mr. LATOURETTE. Mr. Blumenauer.

Mr. BLUMENAUER. Thank you, Mr. Chairman. I am stunned that my adult supervisors have allowed me to be at this hearing this morning. I want to just throw out a couple things if I could in the off chance that I get yanked away.

From my perspective, I do not want to see us get involved in some sort of blame game or whistling somehow that we have solved a problem or we have made massive progress. I think we still have a significant problem that is solvable compared to all the other things that we cope with and throw Federal money at that perplex us. This, we ought to be able to continue the progress we have seen in the past. I would like your help, and the witnesses, Mr. Chairman, on a couple of items of the big picture that would be very helpful for me.

One is, just an understanding of what has happened over the last third of a century in terms of the number of crossings that we are talking about. Somewhere in the material somebody said 100,000 were closed. I would like to get a sense of what has happened over a third of a century, the number of where we were and where we are today.

And if there is something else that all these certified smart people that are joining us here today could offer up that would help us get the big picture, get the context, I would welcome that.

Second, I think it would be interesting to have a comparison over the last five or ten years of the number of deaths in aviation versus the number of deaths in railroads. I should know this, I know. My impression is because of the great work that is being done in aviation, absent an intervening terrorist event, pretty good record in terms of lives lost. And admittedly, it is not apples and oranges because we have a massive rail system.

But just being able to have the context, what have we spent in the number of investigations, what have we spent aviation versus rail. It is a question I would like to explore with our experts and

ask them to submit this in writing, Mr. Chairman, because I do not want to spring anything on people.

But I would like their help in understanding the context of those statistics and whether or not the time has come for us to mandate some sort of minimum investigation any time there is a death that is related to a railroad accident. Again, I would like to get a sense of if there is a way to have a more equitable allocation.

Mr. LATOURRETTE. If the gentleman will yield for just a minute.

Mr. BLUMENAUER. Absolutely.

Mr. LATOURRETTE. I saw everybody scribbling down while you were talking. But if you would be so kind as to put that in writing, I will submit it to the witnesses and we would ask them to help us supplement the record, and I thank you.

Mr. BLUMENAUER. Yes, sir. Thank you. I will attempt to do that, Mr. Chairman.

There are some specifics that I would ask, and I will again make part of a memo, but I want to put it on the table now to the extent that there is some help that witnesses can give us now. Looking at changes that we need to make—and I appreciated some specifics that have come forward. There are no Federal sight distance requirements. Should there be a Federal requirement for railroads? Should there be some requirement that the right-of-way maintenance obligations are, in fact, enforced? We have heard that evidently in Ohio there is some question about this. Is there any problem with just amending the regulations so that the reporting kicks in every time there is a death or serious injury? Is there any problem with making that change? And your notion if there are alternatives for funding. This is a problem, it is not going to be cheap if we have more investigations, for instance. But if there are recommendations about sources for revenues or partnerships that would make that possible.

And if I have not totally exhausted my time, I think my green light is still on, Mr. Chairman, I would like to conclude with one question that the panelists might react to, because the Inspector General's report suggested some ambiguity in the relationship between the Transportation Safety Board and the Federal Railroad Administration.

I am curious if representatives from either agency could speak to the potential of clarifying the relationship between the two so that we do a better job not just of investigation, but getting the policy recommendations, the enforcement, the things that will really make a difference at the end of the day. And Mr. Mead, if you want to jump in at some point at the end of that, I would welcome your thoughts as well since you planted the seed.

Mr. ROSENKER. Congressman, thank you for those questions. If I could begin by stating the fact once again, we would be very interested in investigating every accident we could if we had the assets and resources to do that. So we have created criterion that basically is in the area of passenger traffic. Amtrak, various passenger trains, if they have collisions, they have deaths, we will investigate that, no matter how many of them.

Freight trains, we also take a look at catastrophic issue of what happened at that freight train, there was a HAZMAT release, were there civilians along the sides, that type of thing, we will inves-

tigate those. But unfortunately, with only 14 investigators, we do not have the ability to investigate every one of the accidents, find the probable cause, make recommendations, and then advocate implementation of those recommendations.

This organization only has approximately 416 people to cover all the modes of transportation. We must look at every aviation accident in the United States. There are approximately 2,000 of those. We do not necessarily go to every single one of them, but we will be looking at them and many times we will investigate in cooperation with the FAA. We always work with the FRA when we do these investigations for rail. They are there with us. But they have the wherewithal to go to more than we do.

Mr. BOARDMAN. There is absolutely no ambiguity in knowing when the NTSB shows up who is in charge. We know that the NTSB is in charge, just like as I left New York, and I can speak about that a little bit more since I was there for eight years and I chaired the public transportation safety board, there was no ambiguity on the part of the transit system when we showed up to do an investigation in New York State that we were in charge of that investigation unless the NTSB showed up, and then there was no ambiguity there either that they were in charge. So in terms of that part of your question, Congressman, there is no confusion there.

In terms of the amount of resources or how we would investigate these accidents, I think I note that there are probably 3,000 or more investigators with the FAA and we have a total field staff of a little over 500 people and they are not all investigators for grade crossings; we have about 16 people that are grade crossing experts.

So we try to get to those that we can get to, but more importantly, we try to use them for prevention activities and let our partnerships continue with the local police investigating highway accidents and grade crossings unless it meets the criteria. And I think the question of do we need to change that, do we need to do something different for the future, that is what I hear from your question, and that is something we will look at in more of a response to you.

Mr. MEAD. I would like to take the offer since I planted the seed in the first place. It does seem to me the FRA people to whom he alludes, it is correct to say FRA has more staff, as the Administrator said. It is also correct to say that those very staff are doing other duties besides investigating accidents. I think that under Administrator Boardman's leadership, there is an opportunity for him to reflect on whether the culture inside FRA is oriented to actually wanting to do investigations of these accidents.

Final point. The investigative criteria that FRA uses now needs to be revisited. There are three criteria for when they will investigate the accidents. The first is when there is a malfunction of grade crossing equipment. That makes some sense except that actually goes more to a finding of an investigation.

But what would trigger this is if somebody self-reported that the crossing equipment did not work. That would normally be something that you would want to find out as a result of an investigation. The second criteria, a commercial vehicle or a bus is involved in a grade crossing collision plus one death or several injuries.

Third criteria, if it is not a commercial vehicle or a bus, you have to have three deaths to highway users. I would take a look at that criteria as to whether it is comprehensive enough for their needs.

Mr. BLUMENAUER. Mr. Chairman, if you could indulge me just 30 seconds more. Other than our Chair and Ranking Member, I take a back seat to no one in terms of thinking that rail is critically important for our country's future and that it is going to be more important rather than less for purposes of energy, for purposes of the growth that we have, congestion. This is an issue that I think is going to grow over time.

I cannot say enough how much I appreciate the leadership of our Committee focusing on this, because this something that we have to get right or it is going to pose a problem for current operations of rail, let alone where it is going in the future.

I wanted to just signal one other item. Because I did not know if I was going to be able to be here, I have been reading furiously the testimony. There was an item that was in Mr. Hamberger's testimony that just struck a resonant chord, talking about problems with grade crossings that continue, even if they are low priority for transportation purposes, one would think, but have a high community value.

It is tough to close some of these down. Some people say toss down a jersey barrier. Those of us who have been in local government or who have worked on some of these problems know that sometimes it is not just the neighborhood, it is business interests that are concerned, there are public safety issues. So it is complex. And this is a part of the shared responsibility, Mr. Chairman, that I think we face.

If I am still here when Mr. Hamberger testifies, I was going to try and tease out of him what we could do in a way to help focus on things that keep certain grade crossings going that might lend themselves to cooperative solutions. This is shared responsibility and this is one that looms heavily on my mind, that it may be risky for us to wade in, but it might be useful.

Mr. LATOURRETTE. I thank the gentleman very much. I can just tell you that my first house was three houses from a set of railroad tracks and the street dead-ended at the railroad tracks and my neighbors made their own grade crossings just because they did not want to drive two blocks to go the regular way. So human behavior is something that we do have to address.

I do want to engage in a second round because I wanted to ask about the whistle rule, Administrator Boardman, and a couple of things that are concerning me. It is my understanding that the final rule on the whistle ban requires time-based soundings of horns as opposed to the old way where there is a placard in the ground that has a "W" on it that notifies the crew that it is time to sound the whistle.

It is my understanding now that the engineer is going to have to do a math equation in his head because the time-based sounding of the horn is going to be at a defined time interval away from the crossing, which of course is that old story of when two trains leave Chicago at the same time, which one gets to New York based upon the speed of the train and a variety of other things.

I understand, and I know that this was not done on your watch, but I understand that some labor organizations brought this to the FRA's attention, and the FRA as a matter of fact acknowledged substantial difficulties with compliance. I see substantial difficulties with compliance. And I guess I would just ask you about your opinion on the advisability of having these interval things.

I think it is going to create accidents or the temptation is going to be if I am a railroad and I know if the engineer is not really good at math and he screws this thing up, you are going to be subject to more accidents, more liability, so I would just sound the horn from one end of town to the other so I did not have to say, you know, I am not good at math. Maybe you can tell us what you think about that.

Mr. BOARDMAN. I was trying to decide whether I am good at math. The math, I can tell you: there were 3,000 comments on the initial rule, and another 1,400 after we had published the interim rule. So there is a lot of interest. While I rejected delaying the implementation of the horn rule, we did accept reconsideration on such issues as the time, and we are looking at that right now.

Mr. LATOURETTE. Good. I appreciate that. And the other thing as you begin your tenure, I think the time line on the whistle rule is instructive, at least to those of us that try to be helpful with legislation. The 1994 law required the FRA to issue final rules in two phases; one by November of 1996, and the second by November of 1998.

The FRA, however, did not propose rules until the year 2000, and the recent final rule was finally issued in April 2005. Can you provide us comfort that under your administration you will attempt to address the chronic and continued failures of the FRA to respond to rule-making in a timely manner as envisioned by the Congress?

Mr. BOARDMAN. Yes. In that particular case, Mr. Chairman, just to talk about that if you will permit me for a minute—

Mr. LATOURETTE. Sure.

Mr. BOARDMAN. Congress did require the FRA to stop the implementation and hold hearings. So a lot of that was in there in order to respond again to Congress. But, yes.

Mr. LATOURETTE. Good. And then Mr. Mead, just a couple. We are aware, I think Mr. Blumenauer touched upon it a little bit, but we are aware that sometimes local and State authorities resist making improvements that are suggested by the railroads or other safety experts to make grade crossings safer, design problems within a community that are not on the railroad property, they are under the jurisdiction of the local community, in some cases highway signs might need to be placed, you might have to repair some pavement markings.

If municipalities or States refuse to make these safety upgrades, do you have an opinion as to whether or not the Congress should perhaps empower the FRA to fine or some other way sanction those communities that neglect to make those accepted and recognized safety improvements?

Mr. MEAD. Yes, I think that is well-advised. That is good counsel. You know, in our grade crossing report, the one I mentioned earlier, the 2004 report, we made a recommendation in there that the FRA and the other appropriate parties in the Department should

target the top States that are having these grade crossing problems. Your State is one of the borderline States.

But we suggest the number six--California, Illinois, Indiana, Louisiana, Ohio and Texas. We thought the Department ought to require these six States to submit an action plan that everybody would agree on. They are trying it with Louisiana now. And I think that is a good mechanism, these State action plans, for getting concrete results. And I think they can be linked to money as well.

And if they are properly coordinated within the Department, as Administrator Boardman was suggesting, with the Federal Highway Administration, the Federal Railroad Administration, the Inspector General, the Congress, that is a pretty good list of heavy-hitters. And so I think your counsel on that is well taken, sir.

Mr. LATOURETTE. And the last question before I yield to Ms. Brown. When I was asking questions before about the flexibility, the ability of States to only use money for upgrading at-grade crossings, the highway bill, as you know, has a Section 130 that deals with that. Can you just comment briefly on whether you think Section 130 has been effective during the course of its existence.

Mr. MEAD. Well, I am not specifically familiar with the Section 130. I would just state as a general proposition that, the point you were making earlier about there are some areas that if it is just left to the highway interests, you are going to get some concrete, and if it is left to transit, you are going to get some transit, I think that point is well-taken. I have been at the Department now for some years and I see that in practice.

Mr. LATOURETTE. Okay. Thank you very much. Ms. Brown, do you have more questions?

Ms. BROWN. Thank you, Mr. Chairman. I knew there was something I like about you. You need to know that also my first house was two doors down from the railroad track and the meter used to run right through my house.

Mr. Boardman, I will start with you. I have two or three questions for each party. What resources does the FRA need to improve railroad safety? Do you need more inspectors, more funding?

Mr. BOARDMAN. The resource question. I think, depending on what it is that we would be sent out to do, I would certainly have to be much more specific on that. I know that some folks have analyzed what would it take to look at every crossing and every investigation that might be out there, and it would be far beyond where we could even find people, probably, that would be qualified to do something like that.

But one of the things that has happened at the FRA, I think of particular importance to answer your question, is that the Secretary announced in May a new safety action plan whose centerpiece is called the National Inspection Plan.

That National Inspection Plan is looking at each one of the disciplines for inspection of a railroad safety matter, whether it is an operating practice by the railroad, whether it is a grade crossing or a track, or whatever the particular craft or inspection is, and looking at how should we best employ the resources that we have available to reduce the amount of risk or to reduce the potential for either an incident, an accident, or a loss of life on the railroad.

And that has begun. There are three areas that have already been covered, and we have already begun to shift resources, both in terms of from one railroad or one area of the country to another, to make sure that we are reducing those risks. We will also do that with additional areas; like the signal issues, for example, will be dealt with by early 2006.

That is something. As I came in and I have been getting a briefing for about an hour every week to try to understand that plan, I think it is the way to go. And again, that was something that was driven partly by the Inspector General in his previous report that he looked at, that we needed to look at data differently for the future, and that is something I am interested in as well, that we use our resources wisely in order to reduce the difficulty with safety.

Ms. BROWN. Right. You only have, what, 16 inspectors though, is that correct?

Mr. BOARDMAN. That is just for grade crossings. We have about 500 folks in the field, some of those are supervisors and support staff, probably just over 400 are actually out there inspecting in either track, signal and grade crossing, operating practices, motive power and equipment, and hazardous materials.

Ms. BROWN. And you are also working with State and local governments?

Mr. BOARDMAN. Yes. There are about another 155 inspectors in 30 States that we have agreements with.

Ms. BROWN. My last question for you is, what is FRA doing to address overgrown vegetation and sight obstruction at grade crossings?

Mr. BOARDMAN. We have a rule that requires the railroad to keep any of the either passive or active barriers free from vegetation so people can see those barriers. We do not have regulations that deal with what has been discussed here earlier about the sight distances, and it has been suggested to use AASHTO's green book or some other standard to apply there. We do not have those regulations.

Ms. BROWN. Mr. Mead, do you think the FRA has done a good job in enforcing its regulations and ensuring that the railroads are inspected and assessed appropriate penalties? And I go back to your testimony where you said one major penalty added up to all of the smaller penalties in one incident.

Mr. MEAD. I think that the third major point in our testimony goes to this issue. It seemed to me that FRA inspectors working very hard and diligently identified 7,490 critical safety defects. Critical is not something that we coined; that is FRA stratified the recommendations they made into the more important ones, and those 7,490 were the more important ones of 69,405 that they had found. Of the 7,490, roughly 347 or 5 percent were recommended for violations.

And as I pointed out in 2003, they assessed fines for all railroads in the United States for all grade crossing signal violations of \$271,000, I think it was, and in just one fine this year it exceeded that. So I think they can do a better job. And I think the inspectors out there in the field would appreciate that. They are out there writing all these defects or recommending violations, they must wonder what has become of them.

Ms. BROWN. Okay. One last question for you. How does the FRA differ from the other model administrations when it comes to addressing safety? Are they as rigid as the other model administrations in ensuring that there is appropriate oversight and enforcement of these regulations?

Mr. MEAD. I think FRA is getting better. Administrator Boardman pointed out that the Secretary directed a National Action Plan. I think this Committee should revisit how that plan is performing once it is fully implemented. FAA, I think in aviation, Ms. Brown, it has been my experience that almost across the board in aviation tolerance level for safety risk is the lowest of any mode of transportation.

And then when you get on up, I think common carriers in general, where you are paying somebody to haul your goods or haul your person, that the standards of care there are tough. And then when you get to your own private motor vehicle, that is probably where things are almost totally left to the States. But I think FRA is making some progress.

Ms. BROWN. That is good. I am very pleased that you all are so forthcoming with us.

One last question. You mentioned that you all would like to investigate more if you had more resources. I guess we are responsible for funding you. Is your funding sufficient, we know it is not, but what would it take for you all to do a better job of protecting the public?

Mr. ROSENKER. We asked in this year's appropriation bill for 73 additional full-time employees. That would be in the rail area for rail investigators an additional 10 investigators, and a total for the Department of 22, because we also have hazardous materials and pipeline.

In addition to that, there will be people, say human factors people, that will look at rail accidents when we take the entire team out. Currently, as I indicated earlier, we have 14 full-time investigators, and that would really make up approximately two full teams to cover the Nation today.

Ms. BROWN. You requested that. Is it in the appropriations? Where is it?

Mr. ROSENKER. It was in our appropriations bill. We actually listed the 73 positions, specifically what they would do. Unfortunately, we did not get anything. We were flatlined.

Ms. BROWN. Okay. We have to see what we can do.

Mr. MEAD. Just on the point on resources. I wonder if there are some opportunities for cross-fertilization among the different investigative disciplines. Human factors is an example. Event recorders, there is extraordinary expertise at NTSB in how to get out of wreckage, airplane wreckage, event recorders and how to listen to them and translate them. I would think those skills are transportable to other modes as appropriate. At least that is something that could be looked at.

Ms. BROWN. Thank you. Thank you, Mr. Chairman, I yield back my time.

Mr. LATOURRETTE. Thank you very much. Mr. Bachus.

Mr. BACHUS. I thank the Chairman. Mr. Boardman, I was reading your testimony and, on Page 8, it says the final rule on imple-

menting the 1994 whistle ban statute became effective June 24th. Is that correct?

Mr. BOARDMAN. That is correct.

Mr. BACHUS. When I read that I thought that was a mistake. When was the rule published?

Mr. BOARDMAN. The rule for the purposes of time I think was published in December of 2003.

Mr. BACHUS. I checked that and it was issued April 27th in the Federal Register.

Mr. BOARDMAN. It was issued but it was published back in 2003. Okay, it was the interim rule that was published in December of 2003.

Mr. BACHUS. Yes, which has no legal impact.

Mr. BOARDMAN. We think it does.

Mr. BACHUS. You think the interim rule complies with—

Mr. BOARDMAN. I think one of the implications here that this rule is not yet effective is wrong. That, I guess, is what I am trying to say.

Mr. BACHUS. Well let me go back. You think an interim rule satisfies the statutory 365 days following publication of the final rule?

Mr. BOARDMAN. We have a legal interpretation from within the Department that we have satisfied that rule.

Mr. BACHUS. Based on legal precedents? Could we have a copy of that legal opinion?

Mr. BOARDMAN. Yes.

Mr. BACHUS. Okay. You are not disputing that the final rule was published April 27th?

Mr. BOARDMAN. I guess not. The final rule took effect on June 24th.

Mr. BACHUS. Just reading, "Any regulations under this section shall not take effect before the 365th day following publication of the final rule."

Mr. BOARDMAN. We will get you a legal interpretation. We think it is a final rule now, sir.

Mr. BACHUS. Oh, it is a final rule now, I am not disputing that. But I am certainly disputing the fact that comply with this regulation. I cannot imagine that you found an attorney that would say that an interim rule was a final rule. Do you think those are interchangeable terms?

Mr. BOARDMAN. No.

Mr. BACHUS. But you are doing that in this case?

Mr. BOARDMAN. I am going to get you a legal opinion that I read, that I did not totally understand, but I will give it to you.

Mr. BACHUS. And you are relying on that as opposed to the plain wording of the statute?

Mr. BOARDMAN. Yes.

Mr. BACHUS. Okay. So you admit you are ignoring the plain wording of the statute?

Mr. BOARDMAN. No. Yes.

[Laughter.]

Mr. BACHUS. Okay. Thank you. I like the second answer better than the first.

Mr. BOARDMAN. Yes, I understand.

Mr. BACHUS. I am concerned, I am sure other people have brought it up, about how complex this is for engineers sitting in the cab. When they have got a whistle board, they blow it when they get to the whistle board. But have you ridden in the cabs of these diesel engines as they have approached crossings a lot?

Mr. BOARDMAN. I have not; no.

Mr. BACHUS. Okay. Would you do that if we could arrange that, just so you could observe the complexity of the rule that you all have adopted?

Mr. BOARDMAN. I would not think you would expect me to say "no."

Mr. BACHUS. Right. Thank you. I can tell you that even anybody that appreciates the anxiety and the stress and really the unnerving, and I am not talking about anything to do with you, but as a train approaches a crossing and people are running across that crossing, I can tell you that I was on an Amtrak diesel in Houston, Texas and people were running right across in front of us and there were school buses out there, and I was praying to get off that diesel, not because I was scared but because it was almost a nauseating experience. And engineers do this every day. I do not know how they do it. The stress level has got to be incredible, and I am sure there have been studies on that.

This wayside horn, where you have placed them 50 feet from the crossing, these stationary horns, pole mounted I suppose, is that far enough back?

Mr. BOARDMAN. I do not know the answer to that question.

Mr. BACHUS. That is something you would probably want to know, would you not?

Mr. BOARDMAN. Certainly.

Mr. BACHUS. Is that a fair stopping distance?

Mr. BOARDMAN. I do not know the answer to that question.

Mr. BACHUS. How about the National Transportation Safety Board member, is 50 feet—it seems astonishingly short to me.

Mr. ROSENKER. Sir, depending upon the speed of the train, depending upon the coefficient of the track, depending upon the speed limit—

Mr. BACHUS. I am talking about the automobile. I guess the train would obviously be a variable there. I was thinking more of the—

Mr. ROSENKER. Yes, sir. I am sorry. Depending on how fast the motor vehicle is moving.

Mr. BACHUS. What if it is 40 miles an hour, what is the stopping distance?

Mr. ROSENKER. Sir, it depends, once again, upon the coefficient of the road, depending upon the kinds of tires, depending upon—

Mr. BACHUS. Let us assume a flat road, asphalt surface, four lane highway, level.

Mr. ROSENKER. Sir, you have gone beyond my expertise.

Mr. BACHUS. Okay. Would you agree with me that 50 feet is insufficient?

Mr. ROSENKER. Once again, sir, depending upon the road conditions, it may well be, sir.

Mr. BACHUS. Just from your common, ordinary experience in stopping an automobile, do you think that two car lengths or three car lengths is—

Mr. ROSENKER. Sir, I might not be comfortable with that.

Mr. BACHUS. Okay. All right. Those are easily equated. There are charts and graphs.

Mr. ROSENKER. Yes, sir.

Mr. BACHUS. I can tell you it is astonishingly short. Even with our new braking systems, I think it is pretty impossible. I was interested in your assessment. You are here testifying about these rules and regulations. Have any of you taken a position on 50 feet and whether that is sufficient? Were you aware that it was 50 feet from the crossing?

Mr. ROSENKER. What our position is, we still believe a horn is a very valuable part of protecting a road crossing. However, with the implementation of this legislation, we see a silver lining at the same time; that is, the requirement to improve the road crossing conditions whether by eliminating it totally, whether by building a cross-over, underpass, or by making a passive crossing an active crossing. So at the same time, we see that silver lining.

Mr. BACHUS. Maybe I have confused you. I confused one of the staff. What I am talking about is 50 feet from the crossing being the decision point for making a decision—

Mr. BOARDMAN. Mr. Bachus, it is not 50 feet from the crossing, I am told. It is really on the mast, and it is used with gates, and it is based on time rather than that distance.

Mr. BACHUS. I am talking about the automobile. I am just going to read: "FRA set the minimum volume for wayside horns at 96 decibels based on the motorist's decision point 50 feet in advance of the grade crossing." And a decision point 50 feet from the grade crossing I think is too late for a motorist to make that decision. AASHTO standards of sight distances are probably 300 feet in a lot of instances. So that is what I am saying, a decision point for the motorist 50 feet from the crossing just seems too short.

Mr. BOARDMAN. Mr. Bachus, that is really for measuring the decibel rating at 50 feet. It sounds a lot earlier than that in order to give the motorist a warning for stopping purposes. It is not 50 feet for stopping.

Mr. BACHUS. But I guess that is my question. Why would you measure it at 50 feet when that to me would be beyond the decision point?

Mr. BOARDMAN. That would be at the maximum point I guess of the decibels would be at 50 feet.

Mr. BACHUS. Okay. If I have got a little more time, let me ask, when you tell a railroad not to blow a whistle through a regulation or a statute, and Mr. Rosenker mentioned that he feels like a horn can be a very valuable or necessary instrument in warning motorists, but if you have a rule where you tell a railroad not to blow the horn, you do not shield them from liability in the case they do not blow that horn, do you?

Mr. BOARDMAN. When you tell a railroad not to blow the horn? I do not understand that question.

Mr. BACHUS. Your regulation is—

Mr. BOARDMAN. The rule is blow the horn.

Mr. BACHUS. Okay. It is not a whistle ban statute?

Mr. BOARDMAN. The quiet zones that you would have would be based on the risk that was—

Mr. BACHUS. Okay. And within those areas where they do not blow the horn because of the statute, when they do not blow the horn and liability results, do you compensate them or reimburse them for their liability?

Mr. BOARDMAN. If we have invested dollars at the crossing, Federal dollars at the crossing, then we preempt the liability.

Mr. BACHUS. Okay. So you do preempt their liability. If they comply with that and they are sued—

Mr. BOARDMAN. Yes. I think the concern would be—

Mr. BACHUS. If they are sued and somebody says if you blew the horn—

Mr. BOARDMAN. I can understand clearly now why you got the largest award.

Mr. BACHUS. And let us just say it never comes up from a liability standpoint, they never blow the horn, and you cannot raise that, let us just say it is not even discussed with the jury, but do you not think they are back there thinking they should have blown the horn?

Mr. BOARDMAN. I think that their liability is that if they do not do it right, I think—

Mr. BACHUS. I guess what I am asking, what if they had blown the horn except for the whistle ban statute and the motorist had stopped, instead of the engineer blowing the horn, the motorist stopping, he does not blow the horn, they do not stop, and they result in a million dollar verdict. There is no reimbursement by the Federal Government, or is there any shield provision?

Mr. BOARDMAN. As long as they have complied with Federal law, they are okay.

Mr. BACHUS. Okay. So you would reimburse them for any liability that might occur?

Mr. BOARDMAN. Reimburse them? No.

Mr. BACHUS. Compensate them, shield them? There is no immunity under the statute?

Mr. BOARDMAN. I am going to go back to a yes, no.

[Laughter.]

Mr. BACHUS. All right. I think they would prefer yes, but I think the answer is no.

Mr. BOARDMAN. I think there is a preemption, yes, if there is Federal money that is invested, that their liability is limited.

Mr. BACHUS. No, I am saying when they are sued it is their money on the line. Am I wrong? Other members of the panel?

Mr. MEAD. I think the issue here is a standard of care. Is the railroad by tooting its horn at the intervals authorized by statute and not any more than that meeting a standard of due care that has, in effect, been prescribed by the Federal Government and is therefore not liable if it follows that standard of care. And then I think there is a subsidiary question as to whether the Federal Government would be liable in a law suit for somebody that says that the rule itself imposes a standard of—

Mr. BACHUS. I do not mean to belabor this point, but let us just use a hypothetical. The CSX railroad engine is approaching the crossing, because of the whistle ban statute they do not blow the horn, and an individual gets on the crossing and is hit, and the CSX railroad is sued. Now probably in all likelihood, because of

this Federal statute, nobody is going to say they did not have to blow the horn, it probably is excluded from evidence, the jury probably never hears it, or let us just say the jury is even told there was a whistle ban statute so they did not have to blow the horn. Okay?

Now, I do not know how that comes down, but I do know that if there is a verdict against the railroad they have to pay. It seems to me like you are taking away their right to blow the horn to warn people to therefore limit their liability. Do you follow my logic?

Mr. MEAD. I am not an expert on this horn rule. But I do follow your logic. I see what you are saying.

Mr. BOARDMAN. But the engineer is allowed to blow the horn whenever there is an emergency, whether there is a whistle ban or not.

Mr. BACHUS. But he does not know, Mr. Boardman, whether there is going to be an emergency or not until it is too late.

Mr. BOARDMAN. Well certainly when he sees somebody in front of him he can still blow it, which is the last gasp at that point in time.

Mr. BACHUS. The only thing a last gasp is going to do is the person—

Mr. BOARDMAN. So your point is, you would like to go back, for Congress to not have the whistle ban?

Mr. BACHUS. Well, no. We actually said do not implement it for a year after the publication date which would allow us to address some of these things.

Mr. LATOURRETTE. If I could ask you to wrap up, Mr. Bachus, I would appreciate that very much. Do you have one more question you want to ask?

Mr. BACHUS. Well, the time-based whistle blowing or horn blowing, if the engineer miscalculates when to blow the horn because of the complexity of the rule, is the railroad exposed to liability?

Mr. BOARDMAN. I do not know.

Mr. BACHUS. Okay.

Mr. LATOURRETTE. I thank the gentleman very much. We need to get to our third panel.

For this panel, I want to thank you all for coming. Administrator Boardman, you have had a good baptism here today. I think your observation is right, it is pretty obvious as to why Mr. Bachus was such a successful lawyer in Alabama before joining us here in the Congress. You all go with our thanks.

And pursuant to when Mr. Blumenauer was here, if he in fact writes down those observations that he would like comments on, we will forward those to you and would appreciate your cooperation in getting back to us. But you go with our thanks. Thank you.

While the third panel gets situated, just a couple housekeeping matters. One, I would ask unanimous consent for members to submit additional questions to the witnesses for the record. Without objection, so ordered.

I would also ask unanimous consent that the Chairman of the full Committee, Mr. Young's statement, as well as that of any member of the Committee or Subcommittee, be entered into the hearing record at the appropriate moment in time.

It is now my pleasure to welcome our third panel today. First, Edward Hamberger, who is the president of the Association of American Railroads; Gerri Hall, who is the president of Operation Lifesaver; Dan Pickett, who is the president of the Brotherhood of Railroad Signalmen; and Paul Worley, who is the chairman of the Rail Safety Task Force from the American Association of Highway and Transportation Officials.

I want to welcome you all. We have obviously received your testimony. I do not want to cut anybody off, but now because of the length of the hearing, if we could sort of pay attention to the five minute rule and we will see if we can get through this today. We thank you all for coming.

Mr. Hamberger, the floor is yours.

**TESTIMONY OF EDWARD HAMBERGER, PRESIDENT ASSOCIATION OF AMERICAN RAILROADS; GERRI L. HALL, PRESIDENT, OPERATION LIFESAVER; DAN PICKETT, PRESIDENT, BROTHERHOOD OF RAILROAD SIGNALMEN; PAUL WORLEY, CHAIRMAN, RAIL SAFETY TASK FORCE, AMERICAN ASSOCIATION OF HIGHWAY AND TRANSPORTATION OFFICIALS**

Mr. HAMBERGER. Thank you, Mr. Chairman. On behalf of our members, I would like to thank the Committee for this opportunity to discuss highway-rail grade crossing safety.

In addition, I would like to thank the members of the Subcommittee and the full Committee for their hard work on TEA-21 reauthorization in general, but most especially for your continued support of the Section 130 program and its funding for highway-rail grade crossing improvements.

As you have heard this morning and this afternoon, we have made substantial progress over the years in improving grade crossing safety. The Section 130 program deserves much of the credit for that progress. In fact, since 1980, grade crossing collisions are down 71 percent, fatalities down 56 percent, and injuries, 72 percent. And the decline in the absolute number of grade crossing accidents has come at the same time that rail and highway traffic has been increasing.

The rail industry has been, and remains, in the forefront of the effort to improve grade crossing safety. The record shows that it was railroads back in the 1970s who were the original advocates for the Section 130 program. Railroads have advocated in this Congress for a doubling of the Section 130 funding. And as you pointed out, Mr. Chairman, that was in the face of opposition from the Administration.

Railroads are advocates for change in the MUTCD, as recommended by the NTSB, to encourage the installation of yield or stop signs at passive grade crossings. I would like permission to insert in the record at this point a letter I was pleased to write to Administrator Peters in February of 2004 urging the Federal Highway Administration to accelerate the adoption of this standard.

Mr. LATOURRETTE. Without objection.

[The information follows:]



**Office of the President**  
**Edward R. Hamberger**  
**President and Chief Executive Officer**

February 20, 2004

The Honorable Mary E. Peters  
Administrator  
Federal Highway Administration  
400 Seventh Street, S.W.  
Washington, D.C. 20590

Dear Administrator Peters:

The Association of American Railroads (AAR), as a stakeholder in highway-railroad grade crossing safety with the U. S. Department of Transportation surface modal administrations, was encouraged at the prospect of further improvements at public passive crossings. Two years ago the Transportation Research Board's (TRB's) National Highway Cooperative Research Program (NCHRP) Report No. 470 made conclusive recommendations based on their data driven studies. Simply put, this report recommended the addition of a highway Yield sign (proposed R1-2), or where appropriate and supported by a diagnostic team recommendation, a highway Stop sign (proposed R1-1), on the same post as the Crossbuck (R15-1) at passive public crossings. Report No. 470 further recommended that the Advance Grade Crossing Warning Signs (W10-1, 2, 3, and 4) should inform the highway motorist as to whether they were approaching a grade crossing with active or passive traffic control devices.

On behalf of the railroad industry, I appeal to you to take immediate action to include the attached, or such appropriate language you and your staff as highway experts feel necessary to implement the recommendations of NCHRP Report 470, with your next revision of the MUTCD. Not only are there lives to be saved on our nation's highways, there are additional railroad employees, who are currently exposed to this unnecessary risk of death and injury at highway-rail grade crossings.

Although railroads are not the experts in highway safety at grade crossings, as a sponsor of the National Committee on Uniform Traffic Control Devices (NCUTCD), our representatives participated with many of their state and local highway DOT counterparts in a Task Force formed by the Railroad Technical Committee of the NCUTCD to propose appropriate language to include in Part Eight (VIII) of the next revision of the Manual of Uniform Traffic Control Devices (MUTCD).

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This Task Force and its NCUTCD Technical Committee spent the past eighteen months crafting comprehensive language to implement the recommendations of NCHRP Report No. 470. This Task Force also provided each sponsor and member of the NCUTCD with a copy of the Report. The Report's author and other task force members have also made supportive presentations to the full NCUTCD Committee over the last year. AAR was disappointed when the full NCUTCD Committee tabled and failed to approve and recommend to FHWA the appropriate attached language developed by the Technical Committee. We perceive that it will be a minimum of one year before the NCUTCD will even consider the issue and the necessary implementation language again.

Further delay in implementation of the recommended additions to the MUTCD is resulting in needless exposure of the highway motoring public to death, injury, and destruction. Further improvement to public safety at highway-rail grade crossings can be made today by implementation of the attached language.

Thanking you in advance for your continued interests in public safety, AAR looks forward to its continued partnership with USDOT in furthering our common interests.

Sincerely,



Edward R. Hamberger

Attachment

cc: Administrator Allan Rutter

Mr. HAMBERGER. Thank you.

Railroads were among the founders of Operation Lifesaver, whose educational efforts aimed at drivers and trespassers have helped save thousands of lives, and every year railroad employees make thousands of safety presentations before school and civic groups as part of Operation Lifesaver activities.

Every year our industry spends in excess of a quarter of a billion dollars to maintain active warning devices at grade crossings. From 2003 to 2004, while the grade crossing accident rate continued to decline, the actual number of grade crossing accidents did increase and did not show the improvement of the previous years.

As IG Mead noted, this is due primarily to the fact that our safety efforts have already harvested most of the low-hanging fruit and further progress will yield incrementally fewer benefits. That is why the industry has undertaken many additional safety initiatives. We want to get to the root of this problem, and not just when it is motorist error, but when it is the error of the railroads as well.

Even one grade crossing accident is one too many. And with that in mind, railroads are putting forth significant efforts and expending significant resources on a variety of approaches designed to reduce the number of crossing accidents. For example, CSX has strengthened its grade crossing safety program with several key initiatives including improving its accident reporting operations and advanced analysis of grade crossing accident causes. All Class 1s have multimillion dollar programs to cut vegetation around railroad tracks to enhance public visibility at grade crossings. Union Pacific is near completion of a major safety initiative to upgrade signs at crossings without active warning devices, consistent with the NTSB recommendation.

All AAR members are working closely with States, communities, and private property owners to close unnecessary or duplicate crossings. Since 2000, for example, BNSF has closed more than 2,500 at-grade crossings on their system and has the goal of closing 420 more by the end of 2005. Similarly, Kansas City Southern is partnering with the States of Missouri and Mississippi DOTs to improve safety through a series of upgraded crossing signals or closed crossings.

As we will hear later, Norfolk Southern is partnering with the FRA and the North Carolina Department of Transportation in a new grade crossing safety research project that uses locomotive-mounted digital video cameras to capture real-time data of actual grade crossing collisions and trespass incidents. The FRA noted that the project results will be used to develop more effective safety measures to better protect lives at grade crossings.

Yet much remains to be done. Thousands of redundant or otherwise unnecessary grade crossings remain open and should be closed. Education needs to be intensified further, as highlighted by the fact that nearly half of all highway-railroad grade crossing fatalities occur at crossings already equipped with active warning devices. Motorists all too often drive around lowered gates, ignore flashing lights and ringing bells, and proceed through red traffic lights, often with tragic results.

We also strongly support proposals for simplifying and streamlining data collection involving incidents at grade crossings. Again as

IG Mead stated in his testimony, "There is no evidence of malfeasance on behalf of the industry, but the reporting requirements are complex and there has been a good deal of confusion."

I support his second recommendation that the Federal Railroad Administration, and perhaps it should also be the Federal Highway Administration which keeps track of a fatality accident reporting system, should be given the local law enforcement accident reports. It is our belief that transparency is important in getting to the root cause of every one of these accidents so that root cause can be addressed.

In addition, we urge Congress to consider adopting a number of other initiatives including uniform national guidelines for crossing closure and construction, as well as the ultimate elimination of crossings on the National Highway System. These and other suggestions are more fully described in my written statement.

We stand ready to work with the FRA, the other administrations at DOT, and the goal of everyone seated at this table, including the Angels on the Track that you heard from this morning, is to do everything we can to prevent grade crossing accidents. Thank you for the opportunity to testify today.

Mr. LATOURETTE. Thank you, Mr. Hamberger.

Ms. Hall, welcome, we look forward to hearing from you.

Ms. HALL. Chairman LaTourette, Ranking Member Brown, we really appreciate the opportunity to testify during this hearing on railroad grade crossing safety issues.

Operation Lifesaver began in 1972 as a one-time only, six week public awareness campaign. Idaho Governor Cecil Andrus, the Union Pacific Railroad, and the Idaho Peace Officers, which is what they call their Highway Patrol, had decided that there was too high an incidence of vehicle-train collisions in their State and they decided to do something about it.

The first Operation Lifesaver safety speakers that they sent out spoke to the same groups that we focus on today—professional truckers, school bus drivers, school children, new drivers, and community groups. In its first year, Idaho Operation Lifesaver saw a 43 percent reduction in fatalities in the State. Inspired by Idaho's success, Nebraska, Georgia, and Kansas tried the new approach and experienced similar results. Collision rates in those States dropped between 26 and 75 percent in the first year after Operation Lifesaver education programs began.

By 1986, grassroots Operation Lifesaver programs were active in 49 States. They were joined in 2002 by Washington, D.C. I would note the Ohio State Coordinator for Operation Lifesaver, Sheldon Senek, is seated behind me in the audience. He joined us in 2001 after a distinguished career with the Ohio State Highway Patrol from which he retired as Lieutenant Colonel and Assistant Superintendent.

Operation Lifesaver's messages today are delivered by our more than 3,000 trained volunteer presenters. In the beginning, most of them were railroad employees. Today, a third of them are law enforcement and emergency responders who have had to deal with a tragic collision on the rails. Safety speakers use the materials developed by Operation Lifesaver's Program Development Council. This council is made up of 37 members representing the State coor-

dinators, Federal agencies, and national associations with a role in railroad safety, and representatives of four of the Nation's Class 1 railroads. The PDC also includes a representative from the Department of Homeland Security, and a suicide prevention expert because of our changing times.

Operation Lifesaver is highly regarded internationally and has been a model for railroad safety around the world. There are Operation Lifesaver programs in Canada, Mexico, Panama, England, Argentina, and Estonia, and the Estonians are translating their Operation Lifesaver materials into Finnish and Russian in hopes of spreading the program to those countries as well.

Here in this country, we receive support from the U.S. Department of Transportation, FRA, FHWA, FTA, NHTSA, and Federal Motor Carrier Safety Administration, NTSB, and associations representing commercial trucking, public transit, the police chiefs, fire chiefs, sheriffs, school transportation, labor, State highway safety programs, the railway suppliers, and the railroads. About 90 percent of our funding comes from the Federal Government.

I will not go into the details of all our education programs, how we train our folks, how we work with emergency responders and law enforcement, our public service announcements. But I do want to note what we believe to be Operation Lifesaver's share in the good results that have come in the last 30 years in highway-rail grade crossing safety. We are proud to be one of the many partners who has contributed to the 70-plus percent safety improvement during the last 33 years.

What is Operation Lifesaver contributing? In July 2003, Dr. Ian Savage, an economist from Northwestern University, published a report that concluded that about two-fifths of the decrease in collisions and fatalities since 1975 was due to general highway improvements, such as drunk driving reductions and improved emergency medical response. Installation of gates and flashing lights was accounted as having contributed one-fifth of the reduction. Closure of crossings, about one-tenth of the reduction, and Dr. Savage found that Operation Lifesaver's public education activities had led to about one-seventh of the reduction in fatalities.

More recently, Dr. Savage has calculated that Operation Lifesaver has averted approximately 2,200 incidents and 3,200 deaths between 1975 and 2001. His analysis of Operation Lifesaver State activities indicates that doubling the number of education activities in a State reduces the number of collisions by 11 percent. He notes the annual benefit-cost ratio for Operation Lifesaver would be 101 to 1. So we hope you will continue to believe that we are a good investment.

But frankly, one single person's death at a grade crossing or on the tracks is too many. And in addition to the work that we do in highway-rail grade crossing safety, we have other emerging challenges. We have just begun to work with the light rail industry to develop specific materials for them. We are somewhat challenged by the shortage of safety statistics and demographic studies in that area.

Pedestrian safety and trespass prevention. In 1997, highway-rail grade crossing fatalities were exceeded by pedestrian incidents, where a pedestrian is injured or killed while unlawfully walking,

hiking, or playing on tracks. This tragic trend continues to frustrate us and we are working with all of our partners to try to devote the attention this problem needs.

Rail security. Pedestrian activity around tracks has implications for rail security. In 2004, we invited a representative from the Transportation Security Administration (TSA) to work with us to develop tips and security advisories for rail fans and others to help.

Bad ads and entertainment images. We are convinced that entertainment and advertising images showing unsafe and illegal motorist and pedestrian behavior on the rails is unwittingly contributing to our national rail safety problems. Recently in response to complaints, Nissan Motors discontinued a television ad campaign showing an Altima speeding toward a railroad grade crossing with lights flashing and gates lowering, and at the last minute the lowered gates pivot to stop an approaching train. This does not happen in reality. In reality it would have been tragedy.

Country Music Television and MTV often show their stars strolling down the tracks, leading young fans to believe it is okay to be there, and they both discredit and actually ridicule Operation Lifesaver's concern.

Suicide prevention. For the last several years, our partners in Britain and Canada have noted that suicides are on the rise on railroad property. Unfortunately, Federal statistics on this trend are not collected by the FRA or any health organization in the United States. But we are told by State officials that for every ten pedestrian or rail trespassing fatalities reported to the FRA, there are at least another three suicides by rail, and we need to deal with this.

In closing, thank you again for inviting me to update the Railroad Subcommittee. With your support, we have made good strides. Our work is definitely not done. And as long as there are families like the Moores who have suffered terrible tragedy, we are not finished. So we commit ourselves to you and to our partners and our international colleagues to find solutions to the problems that remain in grade crossing safety and to find ways to meet our new challenges.

Thank you again.

Mr. LATOURETTE. Thank you, Ms. Hall.

Mr. Pickett, welcome, and we look forward to hearing from you.

Mr. PICKETT. Good afternoon, Mr. Chairman and members of the Committee. It is an honor for me to testify before this Committee once again in order to address railroad grade crossing safety issues.

The Nation's highway grade crossings offer one of the most serious public safety hazards on today's railroad system. Crossing accidents represent, by far, the greatest source of fatal accidents in the railroad industry. Approximately one-third of all highway-rail grade crossings have some type of active warning devices. That leaves two-thirds of our Nation's crossings with no active warning devices on them.

When discussing highway-rail grade crossing safety, it is important to understand the major malfunctions of these systems: false activations and activation failures. False activation means the activation of a grade crossing warning system caused by a condition that requires correction or repair of the grade crossing warning

system. This failure indicates to the motorist that it is not safe to cross the railroad tracks when, in fact, it is safe to do so.

Activation failure means the failure of an active grade crossing warning system to indicate the approach of a train at least 20 seconds prior to the train's arrival at the crossing. This failure indicates to the motorist that it is safe to proceed across the railroad tracks when, in fact, it is not safe to proceed across the tracks. Activation failures are the more serious of the two.

Following three highway-rail grade crossing warning device activation failures this year, the FRA and the BRS have been trying to increase the awareness of possible shortcomings of some crossing warning systems and the necessary training to prevent it. The FRA has identified three different issues on crossing warning device safety: manual cut-outs, fouling circuits, and crossing design and testing integrity.

Design deficiencies and omissions are of particular concern, and BRS members are more likely to find a problem and prevent an accident or an incident than anyone else. A properly designed system can eliminate the need to use manual cut-outs and the problems associated with fouling circuits in close proximity to highway-rail grade crossings.

Throughout the history of grade crossing signal systems there have always been changes in technology to provide better protection to the traveling public. DC relay grade crossing signal systems have been in place close to 100 years and a lot of them are still in place today.

The introduction of computers and solid-state equipment has improved many aspects of how we detect the presence of trains and warn the traveling public. It is important to note that both the old technology and the new systems protect the traveling public with a high degree of accuracy and are very safe. However, both systems have their pluses and minuses, and neither is 100 percent perfect.

In the BRS we have seen the steady decline in our membership. As a matter of fact, over the last five years the railroads have cut over 12 percent of the signal jobs in the country. There are two types of signal jobs—construction and maintenance. Construction jobs consist of multiple signalmen who travel across the railroad property performing various construction tasks. Signal maintainers are subject to call 24 hours a day, 7 days a week. They usually work alone, and they have a multitude of responsibilities concerning compliance with many of our Federal railroad regulations.

In the past you had the most experienced signalmen on the most difficult jobs and the least experienced signalmen on construction jobs. Due to the reductions in the overall staffing levels, which brought lengthened territories and increased responsibility, the more experienced signalmen are opting to work in construction and the younger, least experienced signalmen are now being forced onto some of our most hot jobs.

In the past, if anyone wanted to work on anything that affected the normal function of the highway grade crossing signal systems, signal personnel would be dispatched to establish the protection of the public and the railroad employees at the crossing affected. And when that work was completed, signal employees would test the

grade crossing signal systems to ensure they functioned properly as they were restored to service.

Staffing levels have gotten so low, many railroads are trying to institute policies or procedures that permit non-signal personnel to place shunts down on tracks or jumpers around track work to supersede the intended functioning of highway grade crossing signal systems. The inability to perform adequate testing and the failure to comply with the minimum Federal regulations have contributed, if not caused, many of our recent accidents.

When ensuring safety at grade crossings, training and education is another key preventive measure that needs to be considered. In most cases the training period for an assistant signalman is two years of on-the-job training coupled with eight weeks of training, comprised of two-week intervals every six months.

Due to the technology advances in grade crossing signal systems, advanced training is also necessary to stay abreast of the changes in the field. We continue to work to implement advanced training provisions which were agreed to by the industry in 1991, but to date have not been implemented on many of our Nation's railroads.

The BRS believes that four quadrant gates offer an immediate, near term solution to the problem of providing grade crossing safety on all rail lines. Because of the inherent safety value, the Brotherhood of Railroad Signalmen believes that four-quadrant gates should be considered as a minimum standard for all current rail projects where grade crossing warning systems are installed.

The incorporation of a nationwide telephone notification system would greatly improve safety for our Nation's railroad grade crossing systems.

There is much to accomplish to make the Nation's rail grade crossing safer for our communities, the traveling public, and for the employees. By focusing on improved infrastructure, proper staffing, and adequate training improved highway grade crossing can become a reality.

Thank you for the opportunity to speak.

Mr. LATOURETTE. Mr. Pickett, thank you very much.

Mr. Worley, welcome to you. We look forward to hearing from you.

Mr. WORLEY. Chairman LaTourette, Ranking Member Brown, and Committee members, I am pleased to have the opportunity to come before you and discuss highway-railroad grade crossing safety issues. I am with the North Carolina Department of Transportation and I represent AASHTO at this meeting today.

My testimony will make the following points: dedicated Federal funding of crossing safety and new technology has worked well and those programs should be retained and strengthened; at-grade crossing closure and grade separation should be made a high priority; and quiet zones are potentially a move in the wrong direction considering that eliminating crashes is our highest priority for limited resources.

AASHTO has a standing policy resolution supporting the continued dedicated funding of the Section 130 Federal crossing safety program for projects, which includes signalization enclosure. This resolution also supports increasing the current incentive payment

amount for crossing closures. These policies are covered in further detail in AASHTO's Bottom Line report.

Section 130 has been most effective through its funding of projects. FHWA estimates that it has prevented over 10,500 fatalities and 51,000 injuries since this national program was initiated in 1973. Since 1994, the annual grade crossing accident rate has been reduced by over 48 percent. The benefit-cost ratio of the Section 130 program is estimated at two to one.

North Carolina, Ohio, and other States have taken advantage of the opportunities afforded by Section 130. In addition to using funds for crossing signalization, we are directing these funding sources to corridor projects including closures and related mitigation projects.

Section 130 makes good business sense. The elimination of highway-railroad crashes not only saves lives, bodily injury, and property damage, it keeps our railroads and highways moving. Crossing consolidation and elimination is the most cost-effective crossing safety treatment. The safest crossing is one that is not there. North Carolina, like many States, has enjoyed success in collaborating with railroads and local governments in this endeavor. Elimination of crossings can also save capital investment and annual maintenance dollars for public agencies and railroads.

We encourage FHWA and FRA to advocate for crossing consolidation and elimination as a preferred safety alternative when feasible. Fewer crossings equates to less access to our tracks and thus a more secure railroad system. The security of our homeland's infrastructure is paramount and the Metrolink crash earlier this year in California demonstrated what impact a vehicle entering a rail corridor could have on the rail transportation system.

Since 1992, North Carolina has closed over 100 public crossings statewide through engineering studies, worked with communities and adopted polices and guidelines encouraging closures and discouraging new crossings. While additional closures are pending, they are never easy. Public and political opposition can create difficulties in meeting these safety goals.

More highway-railroad grade separations must be built if we are to develop rail passenger and high density freight corridors. A program in Ohio provides State funding for grade separations and includes a railroad and local government match. This is a good model and it should be considered nationally.

In an effort to reduce crossing crashes, North Carolina's Sealed Corridor Initiative took a corridor approach to the testing of new technologies. This endeavor is a joint effort between our State and Norfolk Southern Corporation. FRA granted funds for safety research and development.

This funding was initially used for data-gathering and a series of video monitored tests. Enhanced devices were installed at selected crossings, including median separators, longer gate arms, and four quadrant gates. These devices reduced the number of gate-running violations ranging from 77 to 98 percent, and my written testimony provides further detail on this matter.

Following our successful tests, we expanded the project on a corridor basis between Raleigh and Charlotte, thus sealing the cor-

ridor. Each crossing was treated based on need, including closure and grade separation.

In 2001, we initiated a phase of the Sealed Corridor to study and to treat the remaining private crossings on the corridor. Those crossings that are not provided alternate access and closed are being treated with signals, manual locking gates, special signage and sight distance improvements. We have closed 64 public and private crossings on the Sealed Corridor and are improving the remainder thanks to the availability of Federal Section 130 and Next Generation High Speed Rail grant funding directed towards crossing safety.

In 2002, a U.S. DOT report documented the benefits of the Sealed Corridor from 1995 through 2000 and concluded that five lives were saved during the study period at the crossings evaluated. It further noted that positive benefits of the improvements will grow as vehicle and train volumes increase. FRA is updating the study and North Carolina DOT and Norfolk Southern continues to monitor using a locomotive video system. FRA's Next Generation High Speed Rail program provided the grant funding and was critical to the success of the project. We believe the program should be funded and continued.

Illinois, Florida, and California are among those States that have made great strides toward improving at-grade crossing safety by using enhanced devices based, in part, on this research. Enhanced devices have enabled us to raise the bar for safety. We understand the issue of quiet zones and this now governed by FRA's Locomotive Horn Rule.

However, using proven safety enhancements to mitigate train horns as a quality of life issue rather than increasing the safety protection at crossings with horns is going in the wrong direction. Eliminating vehicle and train crashes is our goal and related funding and staff effort should be focused accordingly.

In closing, States know there is still much to do to improve crossing safety. While we know how to make crossings safer, it is still the driver's responsibility to adhere to laws and practice good driving habits, always expecting a train.

Mr. Chairman, I appreciate the opportunity to provide testimony. If you have any questions, please let me know. Thanks for your continued support.

Mr. LATOURRETTE. Mr. Worley, thank you very much for coming today, and thank all of you for your testimony.

Mr. Worley, I am glad you mentioned the Ohio program. In Ohio now our Governor is under attack for investing in coins and some other stuff, but before he was doing that he did launch the grade separation program in the State of Ohio and dedicated a substantial amount of money.

I know just in the small corner of the State that I have we have been able to build three grade separations. Not only is it safety, but it is safety-plus in that you do not have blocked crossings, aside from dangerous crossings, and you can get your ambulances through, your fire trucks, and it makes it just a safer world. So I would hope that other people would copy Ohio at least in that regard, maybe not with the coins, but in the grade separations.

Mr. Hamberger, sort of the major theme of your testimony is this whole business about redundant crossings and closing redundant crossings. If I could take you back in time maybe to 1994, what I think some people in Congress thought was going on with the whistle ban was that it was to provide a carrot and a stick approach to communities—the carrot being that if you did not want a train whistle blowing and waking you up at 4:00 in the morning, you should engage in the quadrant gates that Mr. Pickett talked about or you should really bullet-proof these grade crossings; the stick being if you did not want to spend any money upgrading your crossings, you are going to have people waking up with noises.

To put it bluntly, I think the anecdotal evidence suggests that communities have not really responded to that carrot and stick approach and that the political pressure that elected officials are subject to in some of these smaller communities is we have some people who would apparently think it was okay or better for some of their neighbors to get killed at railroad crossings than it would be to drive three blocks and cross at one of these improved crossings.

How do you think we crack that nut? We tried to do it with the whistle ban. What do you think we have to do to get people's attention on some of these redundant rail crossings?

Mr. HAMBERGER. Let me just start I guess by addressing the issue of the whistle being blown itself. In that regard, I find myself, as I often do, on the same side as Ms. Brown when she was back in the State of Florida legislature supporting the blowing of the horn, because it was in fact in her State that the real world data first appeared that blowing of the horn does have a 60 percent impact on accident rate. So therefore, we are very much in favor of continuing to have the rule be that the horn does get blown.

Then the question is what exceptions can there be to that rule. We have been very consistent through the ten year exodus of this rule in urging the FRA to adopt some sort of supplemental safety device, which I believe they did. I guess the rule has just gone into effect, maybe not officially in effect, depending on your point of view.

Mr. LATOURRETTE. We are waiting for the lawyer's letter.

[Laughter.]

Mr. HAMBERGER. Yes. We will figure that out. But I think that some of the reticence of the local communities to act was waiting for that final rule to determine what would qualify as a supplemental safety device. I believe I heard Administrator Boardman say that there have been 240 applications for quiet zones in the last 60 days. So it seems to me that maybe now that the rule is out there that there will be more action at the local level.

A broader answer, of course, is to go back to my testimony where I comment that each of the Class I carriers, but I emphasized two, the BNSF and KCS programs, although everybody has them, are working with, as Mr. Worley has indicated, working with the AASHTO, working with the local communities, working with the State DOTs trying to figure out a way to make sure that there is adequate safety at the crossings so that the whistle can be quiet as they go through.

Mr. LATOURRETTE. Okay. I thank you for that. Ms. Moore was originally going to be on this panel and I asked unanimous consent

to put her up in the first panel because I was struck by a couple of things in her testimony that we had a chance to review before the hearing and I wanted this panel to listen to her observations and you could sort of cogitate on that.

First to you, Mr. Hamberger, her observations about the railroad industry having inadequate regulations or procedures for dealing with line of sight difficulties. Let us talk about vegetation first and then we can talk about line of sight in particular. I know you were in the room when she testified. How would you respond on behalf of the industry to those observations?

Mr. HAMBERGER. Again, each of the AAR members has an aggressive vegetation control program. No program is perfect, but there is no Federal vegetation regulation, each State is different, and we do comply with those State regulations. With respect to the Federal Highway Administration line of sight, and I am going to have to defer to Commissioner Worley here as to exactly how that works at the State DOT level, but we can only be responsible for the right-of-way which we own.

And so if you are designing a new grade crossing now, I think there are standards that the Federal Highway Administration has for designing new crossings, but if there is a building on private property within 300 feet of the grade crossing but it is not on our right-of-way, there really is not very much we can do about it. I know that we do support and we have had people working on the AASHTO and FHWA committee, and I think you were on that with Bill Browder of our shop and maybe you can shed more light on it.

Mr. LATOURETTE. Mr. Worley, do you have something to talk about relative to that?

Mr. WORLEY. Yes, sir. It is a complex issue because you have got a limited railroad right-of-way. For instance in North Carolina, we have a State owned railroad that is 200 foot wide, and that is extremely wide. Most railroad rights-of-way are anywhere from 15 foot wide, to 60 foot, to 120 foot, and then you have got the State maintained road where the right-of-way is only the maintained limit to the road, which is the ditches and the asphalt or the dirt. So you do not have the right-of-way in a lot of cases to make the sight distance improvements we would like to make.

In many cases at the State DOT level, we find ourselves supporting the railroads when they go through trying to cut their sight distance by telling these property owners that this is good for safety they are cutting within their right-of-way, and we know that is your very favorite yellowbell bush that your grandmother gave you but it has got to be cut back. So it is complex and it is not a very simple matter to just go out and cut.

Mr. LATOURETTE. I thank you for that. Mr. Hamberger, back to you for just a second. I think one of the statistics, and I heard you say the reporting requirements in your opinion are complicated, but I would like your comment on Inspector General Mead's observation that the railroads are under-reporting by 21 percent to the National Response Center.

Mr. HAMBERGER. More importantly, Mr. Chairman, it is not my observation, it was Inspector General Mead's observation that there are eight different criteria for reporting and it was his obser-

vation that there was confusion and that the clarification, simplification of the reporting system should be carried forth. Having said that, there is a total commitment on behalf of our members to comply with every reporting requirement.

I would like it underscored that Mr. Mead indicated he found no evidence of misfeasance, number one, and number two, that no one is trying to hide the ball here. Every accident was reported at least to the FRA. But having said that, we will redouble efforts, as I know every member has already indicated that they have, to comply with the reporting requirements.

I indicated in my oral statement that I do believe there is room for additional material to be collected. The Federal Highway Administration does have something called FARS, the Fatality Analysis Reporting System, maintained by NHTSA, and that maybe since there is a system already set up, Mr. Boardman indicated he was talking to the other administrators, we would support the gathering of any and all accident reports filed either by those people involved in the accident or the local law enforcement officials.

Mr. LATOURETTE. I am glad to hear you say that because I was encouraged by Administrator Boardman's comment about that. I do not subscribe any sinister motive to the railroads, but when I practiced law, apparently not as well as Mr. Bachus, but when I practiced law we had an expression that five people could see the same accident and you could get five different statements and reports.

I do think that it would be instructive to have more than just the railroad's perspective on how that accident happened. And if the Administrator is now talking about including a section of that where local law enforcement would be consulted, I know that Ms. Hall talked about the fact that she has on her board someone from our very highly respected State Highway Patrol. I think the observations of others at the scene may help not only find out what happened at a particular crossing, but give the railroads some insight and the Federal Government some insight as to how we can do better at that particular crossing.

Mr. HAMBERGER. Absolutely correct. And if I might just add, that is one of the driving forces behind Norfolk Southern's independent effort to put cameras on the head end of all their locomotives. I know they have, as we heard here this afternoon, a cooperative effort with the State of North Carolina, and I believe all the other Class 1s have made commitments as well to put the cameras on the head end so that these accidents and other data can be recorded.

Mr. LATOURETTE. Good. Thank you very much. Ms. Brown.

Ms. BROWN. Thank you, Mr. Chairman. Mr. Hamberger, at the last hearing on new technology in rail safety and security, you and Mr. Pickett agreed to get together and discuss what can be done to improve worker training in the rail industry. Can you and Mr. Pickett give us an update on the progress of those meetings?

Mr. HAMBERGER. We had a meeting scheduled at his new headquarters in Front Royal, Virginia about three weeks ago which, unfortunately, had to be postponed. We have talked here this morning about trying to get together again.

In the meantime, our security committee has met with a group called the National Transportation Institute, which is at Rutgers

University, which has developed national standards for training for the mass transit industry. We have asked them to help us put together some standardized training program for freight rail as well, and obviously I will be talking to Mr. Pickett about that when we do get together.

Ms. BROWN. Mr. Pickett?

Mr. PICKETT. I agree with what he said. I was the one that canceled the meeting. I did not know about his new study and I am anxious to hear about it. I still do not know of any training going on right now.

Ms. BROWN. Okay. I have a question for each of the panelists. We have discussed it throughout the morning and now into the afternoon, I think this has been a great hearing, Mr. Chairman, and that is despite recent progress, the number of accident fatalities and injuries at grade crossings and across the entire rail network has increased in 2004. What do each of you think that Congress can do to improve rail safety? We will start with you, Mr. Hamberger.

Mr. HAMBERGER. I think Congress' main effort could be increased funding for the Section 130 grade crossing program. I know that is something you have been fighting for. Frankly, I wish we had had Ms. Moore on our side with the coalition that we had put together, I wish we had been able to work with her at our side and perhaps we would have gotten even more money than we are already going to get. Thanks to your efforts we are going to get some increase in that.

Long term, I mentioned the idea of trying to make the National Highway System totally grade crossing free. The Interstate system was designed with that in mind. The NHS would be the next logical step. Our data indicate that approximately 4,500 grade crossings intersect the National Highway System. I am told by the Federal Highway Administration that the amount of vehicle miles travelled, both commercial and personal, is approaching 50 percent on the NHS. If we could have a long term goal to close and/or separate those grade crossings, I think that we could just by volume numbers alone take away a lot of the potential accidents out there.

Ms. HALL. Certainly, the reauthorization of the highway bill is important to everyone in the highway-rail crossing community. I would also add that from our perspective, it was raised by Congresswoman Johnson this morning, light rail is a very blooming, blossoming, hugely expanding area of concern to us at Operation Lifesaver because we have just begun developing educational materials for those folks that are dealing with brand new light rail systems that they do not really have any experience dealing with. They are different systems, they operate differently, they have trains running down the middle of the city streets.

So we have tapped into developing educational materials for young people, but we really need to continue our efforts of outreach to light rail and to educate that populace.

Mr. PICKETT. I would have to say that I agree with them on the Section 130 funding, we definitely can use more of that. But I think it has to be looked at, as someone spoke earlier and said that close to 50 percent of crossing accidents had warning devices, and I

would submit to you that where that happens is normally with only the flashers, not the gates.

The information that the North Carolina corridor has been able to provide, and in California also where we are using four quadrant gates and with the barriers in between, the cost is so minimal for the difference in two more gates and some other material, it is very minimal, and it actually almost prevents the accidents. It is in the 90s if you use the barriers and the four quadrant gates.

So I would submit that more consideration needs to be given to that, that when they apply for the grade crossings that they look at the traffic and use the four quadrant gates in any areas that they can.

Ms. BROWN. Mr. Pickett, can I have your recommendation in writing, along with the others, about what Congress can do?

Mr. PICKETT. Certainly.

Ms. BROWN. Okay. Thank you.

Mr. WORLEY. And I would add from the State point of view, continue the dedicated funding like Section 130 and the R&D. One thing about this is in our country you have a lot of urban sprawl and you are going to continue to have it, you are going to have traffic increasing on these farm to market and neighborhood crossings and we are going to need to find a way to close them, or protect them, or grade separate.

We need support in crossing closure goals. We are out there fighting for these closures. We are not doing closures haphazard or ambiguously, we are out there doing engineering studies in corridor projects and public involvement, and it would be really nice to say that there is a national goal, there is something we are trying to meet there.

Also, the grade separations there as well. And then finally, we need to make sure that we stay focused on directing our resources, our scarce resources toward safety. The quiet zone application process is going to be a distraction for States and the personnel that are involved in protecting our crossings are going to be spending a great amount of time working with communities to satisfy these quiet zone regulations and turning over the box, some of them successful, some of them may not be, but we will still spend quite a bit of time on that issue.

Mr. LATOURRETTE. I thank the gentlelady. I just have one more question that I forgot to ask, and then if Ms. Brown has a couple more questions, we will let her ask those. My question is to you, Mr. Worley, and it really does not have anything to do with why we are here in terms of dangerous intersections for automobiles.

But this whole issue of humped crossings, it seems to me up in New England there was a pretty serious accident where the load bed got hold of the hump, a couple hundred people were injured. The problem is the municipality, the State, the Federal, whoever is responsible for the road coming up to the crossing, and then the railroad is responsible obviously for the maintenance of their right-of-way. Has AASHTO looked at the difficulty of these humped crossings at all and some of the dangers that are posed? And if not, is that something that maybe AASHTO could put into some of its engineering models?

Mr. WORLEY. We have looked at that and have been involved in working with FHWA and FRA on that issue. First of all, back around ten years ago, as part of the Blue Ribbon Task Force I was actually a part of, we talked a great deal about humped crossings. One of the things that we kept saying from the State level is you need to identify them, mark them, and then come up with a long range plan to get rid of them.

One of the things about the railroad is if you have got a main line track and you are running heavier cars for all the economic development, industrial development we have across the country, you are going to be raising the track, you are going to be trying to make your rail bed better and better, get it out of the mud so you do not have derailments.

So the railroad track is going to be raised. The issue of trying to meet it, you have got to try to, like I say, identify it. AASHTO is working with our Motor Carrier committees within our group and trying to implement the NTSB goal of better communication when we have over-weight, over-size truck permits, letting them know that the route that they are planning to take is a humped crossing, to take another route. But we have got to come up with some long range plan, at least have a plan in place to get rid of these crossings, be it closure or some serious improvements so that we can eliminate the hump.

Mr. LATOURETTE. Okay. Thank you very much.

Do you have any more questions, Ms. Brown?

Ms. BROWN. I guess we are going to have an opportunity to submit additional questions, Mr. Chairman. So I yield back the balance of my time. I want to thank everybody for their participation in the hearing.

Mr. LATOURETTE. I thank the gentlelady very much and I want to echo Ms. Brown's observations. I want to thank all of the witnesses and all of the panels today. I thought this was a productive hearing. If there are additional questions or observations, we will submit those to you, and if you would get back to the Subcommittee in a timely fashion we would appreciate it. I appreciate the last panel for coming close to the five minute rule on every occasion. Thank you.

This Subcommittee is adjourned.

[Whereupon, at 1:58 p.m., the subcommittee was adjourned.]

**Testimony of Joseph H. Boardman, Administrator  
Federal Railroad Administration,  
U.S. Department of Transportation,  
before the Subcommittee on Railroads  
of the Committee on Transportation and Infrastructure,  
U.S. House of Representatives  
July 21, 2005**

Mr. Chairman and members of the Subcommittee, I appreciate this opportunity to appear before you, on behalf of Secretary Mineta, to discuss highway-rail grade crossing safety. Since June 1 of this year, my responsibility has been to lead the Federal Railroad Administration (FRA), the agency charged with administering the Nation=s railroad safety laws. As you know, FRA=s safety mission is simple: we help prevent fatalities, injuries, and property damage related to railroad operations, and we support the Department of Homeland Security=s efforts to enhance the security of those operations. FRA has jurisdiction over all areas of railroad safety. FRA=s inspection force of 441, supplemented by 155 State inspectors from 30 States, inspect railroad operations for compliance with Federal laws and regulations, and we use a variety of enforcement tools to encourage compliance. (See Appendix I to this testimony.) We help educate the public about safety at highway-rail grade crossings and the dangers of trespassing on railroad property. FRA investigates selected rail accidents, working closely with the National Transportation Safety Board (NTSB) where that agency also elects to investigate, and we closely track the railroad industry=s safety performance. FRA also sponsors collaborative research with the railroad industry to introduce innovative technologies to improve railroad safety.

Since you have asked me to focus on safety at highway-rail grade crossings, let me emphasize at the outset that FRA is here today representing the U.S. Department of Transportation=s (DOT=s) five surface transportation modes, which share responsibility for

highway-rail crossing safety. It is the privilege and responsibility of FRA, the Federal Highway Administration (FHWA), the Federal Motor Carrier Safety Administration (FMCSA), the National Highway Traffic Safety Administration (NHTSA), and the Federal Transit Administration (FTA) to work with State and local governments, railroads, rail employees, Operation Lifesaver, Inc. (a private, non-profit, educational organization), and others to reduce deaths and injuries at highway-rail crossings. We are supported by the Volpe National Transportation Systems Center of the Department's Research and Innovative Technology Administration as well as a community of scholars outside the government who help us devise better approaches to crossing safety. Although I will concentrate today on FRA's role in this process, none of us can do this work alone or without a proper regard for the role of others.

**Rail Safety Overall and FRA's Rail Safety Action Plan**

Highway-rail grade crossing safety has improved dramatically since the mid-1970s, as the statistics I will soon present amply demonstrate. FRA recognizes, however, that serious railroad accidents earlier this year have raised concerns on this Committee and in the public about crossing safety in particular or rail safety in general. Despite the impression one might get from news accounts of recent accidents, the number and rate of train accidents, total deaths arising from rail operations, employee fatalities and injuries, and hazardous materials releases--all have plummeted over approximately the last two and a half decades, as shown in rail safety statistics summarized at Appendix II to this testimony. Grade crossing safety is another very positive part of that bright picture.

Nevertheless, recent serious train accidents, such as at Graniteville, South Carolina, this past January, have highlighted specific issues that need prompt government and industry

attention. As explained in FRA's Rail Safety Action Plan, which is Appendix III to my testimony, FRA is aggressively moving to address these critical issues and to heighten the awareness of the entire industry on the need to demonstrate positive change in these areas. Our major areas of emphasis are train accidents caused by track defects and human error, which together account for more than 70 percent of reportable train accidents. The plan explains how FRA will do the following: address the leading causes of train accidents caused by human error; improve the safety of hazardous materials shipments; explore ways to minimize the dangers of crew fatigue; deploy state-of-the-art techniques to detect track defects; and focus FRA inspectors on safety trouble spots through improved use of safety data and the agency's National Inspection Plan.

#### **Crossing Accident Statistics**

Grade crossing safety has shown great improvement overall, as shown by the statistical record. In 1975, the first year that FRA began collecting crossing collision data using a definition of the reportable event comparable to that used today, there were 12,126 crossing collisions that resulted in 917 deaths. (Note that, in FRA's terminology, most of these collisions are reported as "incidents" because they do not involve enough damage to railroad property—currently a minimum of \$6,700—to qualify as "train accidents.") By 2004, according to preliminary figures, the number of collisions had fallen to 3,050 and the number of deaths had fallen to 368. As these numbers show, crossing safety has improved markedly since 1975 and despite an increase in exposure due to increased rail and highway traffic. In fact, from 1975 to 2004, crossing collisions have declined almost 75 percent, and fatalities also decreased by almost 60 percent, while the frequency of crossing collisions per million train-miles has dropped 75

percent. (For a shorter-term look at crossing accidents statistics, please see the charts at Appendix IV of this testimony, which graphically illustrate the overall reduction in the number and rate of crossing collisions and of related fatalities over the decade from 1995 through 2004.)

In 2004, there was a disturbing increase in deaths as the result of crossing incidents, from 332 in 2003 to 368 in 2004, although the rate of such incidents continued to improve. Our analysis shows that the increase in deaths was primarily attributable to deaths of pedestrians at crossings, which indicates that pedestrians at crossings should be an area of emphasis. According to preliminary data for the first four months of 2005, however, the trends are very positive, with crossing deaths down by 5.6 percent, crossing incidents down by 8.1 percent, and the incident rate down by 10 percent as compared to the same period in 2004.

As to the cause or causes of crossing incidents, FRA's mandatory reporting system for highway-rail grade crossing collisions does not call for assignment of a "cause code" unless the event also qualifies as a train accident. However, if the data elements required by FRA's reporting guide are accurately entered on the crossing incident form alone, the cause or causes of the event should be evident in the vast majority of cases. For instance, if the motorist drove through or around a lowered gate, on the one hand, or an active warning system failed to provide a warning, on the other, the genesis of the event is normally quite clear. If that information is not enough to identify the cause(s), the reporting guide notes that the narrative portion of the form "should include any information that increases our knowledge of the reasons why the accident occurred and its consequences." The great majority of crossing accidents result from risky behavior or poor judgment by the highway user. The DOT Office of the Inspector General audit report dated June 16, 2004, on FRA's crossing safety program states that "[i]n 2003, we found

that 2,368 or 93 percent of the 2,543 public grade crossing accidents and 242 or 83 percent of the 293 fatalities occurred because drivers engaged in risky behavior or exercised poor judgment at crossings with active and passive warnings.”

#### **Crossing Safety Initiatives**

Improvement in crossing safety has resulted from a variety of sources, including public investment in crossing warning devices and greater awareness of the risks present at crossings on the part of highway users. As I indicated earlier, these advances were brought about by collaborative efforts of railroads, rail employees, FRA, State and local governments, our partners at DOT (FHWA, FMCSA, FTA, and NHTSA), Operation Lifesaver, and many other non-governmental groups.

Improvement has not come easily, as collisions at grade crossings are a very complex issue with a number of different factors to be considered. The two different types of transportation vehicles involved, trains and motor vehicles, are very diverse. Trains are heavy and operate on fixed rails. The weight difference between a train and a motor vehicle not only makes it virtually impossible for the train to stop in time to avoid a collision, but it also greatly increases the severity of the collision if one does occur. Motor vehicles are very light, when compared to a train, and are extremely maneuverable. Drivers are very adept at using this maneuverability in order to avoid delays in traffic or hazards they encounter and become accustomed to using these maneuvers in their daily driving routines. Too often this maneuverability is used around grade crossings, resulting in risky behavior by drivers. Even in corridors that have a great deal of train traffic, the likelihood of a driver seeing a train at a crossing is relatively rare; therefore, most drivers do not have a lot of experience upon which to

rely when they encounter a train. Almost 50 percent of collisions at public crossings occur at crossings that have properly functioning automatic warning devices consisting of either flashing lights or flashing lights with gates. Clearly the installation of these devices is not the sole solution. It is evident that there is not a simple solution, but much progress has been made. I would like to highlight a few of the initiatives that FRA has undertaken that have contributed to the improvement in the safety at the Nation=s grade crossings.

DOT's 1994 Crossing Safety Action Plan

In June 1994, FRA, along with all the other DOT surface transportation modal agencies, jointly issued the ARail-Highway Crossing Safety Action Plan.@@ This action plan provided 55 specific items in six major initiative areas that were to guide the Department=s efforts to reduce the number of crossing collisions and related fatalities by 50 percent within the next ten years. Federal incentive payments for crossing consolidations and increased Federal penalties against commercial motor vehicle drivers that violate traffic laws at crossings are just two of the strategies identified in the plan that have been adopted successfully. The DOT Office of Inspector General=s June 16, 2004, audit report on the highway-rail grade crossing safety program recognized the advances made, concluding that Athe Department and states made substantial progress in improving grade crossing safety and came close to meeting the plan=s goal.@@

New Regulations

FRA has issued several regulations that have improved crossing safety. In 1991, FRA put regulations in effect that require railroads to report all activation failures of crossing warning systems to the FRA within 15 days of the occurrence so that FRA may investigate the

circumstances and cause of the activation failures. The regulations also require telephonic notification to FRA of within 24 hours of any impact between on-track equipment and a highway user that involved an activation failure. Beginning in 1995, regulations have been in place that govern the maintenance, inspection, and testing of automatic warning devices at grade crossings and require railroads to respond to credible reports of any malfunctions, of automatic warning systems at highway-rail grade crossings. The regulations are designed to improve the reliability of these important traffic control devices.

Since the end of 1997, the lead locomotive of trains traveling faster than 20 mph over a public crossing must be equipped with two operating auxiliary lights. These lights and the headlights of the locomotive form a triangular pattern that makes the approaching train more detectable to motorists. FRA safety inspectors make routine inspections to monitor compliance with all these regulations and take enforcement action as necessary.

On January 3, 2005, FRA published a final rule requiring reflective materials on locomotives and freight cars to enhance further a motorist's ability to detect a train at night and during adverse weather conditions. The reflectorization rule will become effective when recent petitions for reconsideration are resolved.

On April 27, 2005, FRA published a final rule entitled "Use of Locomotive Horns at Highway-Rail Grade Crossings." This regulation, which was required by statute, promotes crossing safety by requiring that the locomotive horn be sounded by trains as they are approaching public grade crossings. It also provides a mechanism that permits local public authorities to create quiet zones where train horns are not routinely sounded if there is not significant risk at the crossing or if additional safety measures are employed to reduce risk to

appropriate levels. The rule also provides special consideration for communities that had pre-existing quiet zones.

FRA has worked closely with local communities and State agencies to explain the requirements of the rule and to help public authorities to comply with the quiet zone requirements. The train horn rule became effective on June 24, and over 220 quiet-zone corridors have been established in accordance with the rule. Most of the plans that FRA has seen for the establishment of new quiet zones have included significant improvements to crossing safety. FRA looks forward to working with local governments to establish quiet zones that not only improve the quality of life by silencing the train horn but also enhance safety by preventing grade crossing accidents.

On June 30, 2005, FRA published a final rule requiring locomotive event recorders to be hardened to prevent the loss of data from exposure to fire, impact shock, fluid immersion, and other potential damage following a train accident. It also requires that while continuing to capture data such as speed, application of the automatic air brakes, throttle position, and cab signal indications, the event recorders will now also include data elements like horn control activation, cruise control functions, and safety critical train control operating directives sent to the engineer's onboard display that require mandatory compliance. The rule will ensure that investigators have more of the type of information they need available to them to determine why a train accident occurred, thereby helping to prevent future ones. Further, the rule significantly extends the time period that railroads must maintain data stored on the event recorder following a train accident to one-year from the present requirement of 30 days, to allow FRA or NTSB more flexibility to review the data if no immediate investigation is undertaken. Finally, the old-style

event recorder using magnetic tape will be phased out over a four-year period and replaced with a new electronic model.

Additional Staff

Since 1994, FRA has added 16 full-time grade crossing managers to its field forces. These managers perform many different tasks to improve safety. They participate in grade crossing corridor diagnostic reviews, where they help to provide expertise to local officials in the determination of appropriate traffic control devices to install at the crossings. The crossing managers work closely with State agencies responsible for crossing safety to find new ways to improve crossing safety. This year an FRA crossing manager worked closely with the Louisiana Department of Transportation and Development in the creation a State-specific crossing safety action plan. They also investigate and help to resolve complaints about hazardous crossings and other safety concerns.

DOT's 2004 Crossing Safety Action Plan

Despite the improvements that have been achieved, FRA is well aware of the fact that there is still much to be accomplished. In 2004, grade crossing incidents accounted for about 41 percent of the 899 deaths related to railroad operations. This is a significant number, and FRA's Crossing Safety and Trespass Prevention Program is committed to reducing that number. Like many other safety efforts, our approach utilizes *education, enforcement, and engineering*. Here are some of the additional efforts that we are making to continue to reduce the number and severity of these tragic incidents.

Last summer the Department published AThe Secretary=s Action Plan--Highway-Rail Crossing Safety and Trespass Prevention. @ This action plan, like its predecessor, provides a

road map for the Department=s efforts to improve crossing safety for the coming years. As directed in the Congressional conference report (H. Rept. 108-10) accompanying the fiscal year 2003 appropriations act for FRA, the plan outlines specific steps to be taken by the Department. The plan was made in consultation with stakeholders from both the public and private sectors and, in particular, reflects advice from the Office of Inspector General audit. The following nine initiatives were included in the Department's 2004 Grade Crossing Action Plan; an example is provided for each initiative:

1. Establish Responsibility for Safety at Private Crossings - In the first quarter of calendar year 2006, FRA will initiate a series of public workshops, during which FRA will encourage discussion and gather information on the current state of safety at private grade crossings and identify known safety needs.
2. Advance Engineering Standards and New Technology - In the first quarter of 2006, FRA will begin an analysis to determine the scope of the problems that may be caused by power failures at railroad preempted highway signalized intersections.
3. Expand Educational Outreach - DOT will develop Internet-based, interactive grade crossing safety educational tools for use by commercial vehicle drivers.
4. Energize Enforcement - By the end of 2005, FRA will publish a report on the trespass prevention initiative at Pittsford, New York, that uses video surveillance, so that other communities may learn from this project.
5. Close Unneeded Crossings - FRA will concentrate on presenting "best practices" and successful initiatives in providing technical assistance and support to States and local governments in the consolidation of grade crossings.

6. Improve Data, Analysis, and Research - FRA will examine current accident data to identify those States that have a significant frequency of multiple collisions at grade crossings that have previously been equipped with lights and gates and encourage those States to identify strategies to improve safety at those crossings.

7. Complete Deployment of Emergency Notification Systems - FRA will work to facilitate (a) the implementation of systems permitting members of the public to provide emergency notification to railroads of problems at particular crossings (e.g., a motor vehicle immobilized on the tracks) and (b) the posting of signs compliant with the Manual on Uniform Traffic Control Devices at railroad crossings on all railroads.

8. Issue Safety Standards - FRA will respond to petitions for reconsideration of its January 2005 a final rule that would require retro-reflective material on the sides of freight rolling stock (freight cars and locomotives) to enhance the visibility of trains to motorists, in order to reduce the number of accidents at highway-rail grade crossings.

9. Evaluate Current Safety Efforts for Effectiveness - The Department will undertake a comprehensive evaluation effort to determine the effectiveness of the principal grade crossing collision mitigations to ensure that “best practices” are identified, and that emphasis and support for these programs and projects are maintained.

Education

Operation Lifesaver (which receives funds from FRA and FHWA) and similar educational initiatives have spread the message to motorists about the importance of driver behavior in helping to prevent crossing collisions. FRA field forces are actively engaged in educational efforts in communities, schools, and workplaces across the Nation. For example,

with our partners at FMCSA, Operation Lifesaver, and trucking associations, FRA helps educate drivers of commercial vehicles about the importance of highway-rail grade crossing safety. FRA=s crossing safety activities in my home State of New York before I came to FRA provide some concrete examples. There, FRA and the New York State Operation Lifesaver have gained the cooperation of the New York Motor Truck Association to include a variety of highway-rail crossing safety awareness materials in its newsletter, which reaches over 1,000 recipients each week. FRA and FMCSA have participated with New York Motor Truck Association in a series of regulatory and safety seminars held in Buffalo, Rochester, Syracuse, Albany, and Long Island, and FRA participated in the Association=s annual State-wide conference in July 2004.

FRA has collaborated with Chautauqua County, New York Operation Lifesaver, and the rail industry to develop a county-wide safety initiative that will enlist law enforcement agencies, educational institutions, the press, and the business community to deliver a comprehensive community safety program, including rail/public safety. Similarly, FRA actively participated in establishing Ballston Spa Central School District=s annual community rail/public safety initiative, which reaches approximately 4,500 students each year. FRA safety specialists also have participated in safety programs at the Erie County and New York State fairs, a Boy Scout Railroading Safety Merit Badge program on Long Island, safety fairs conducted in cooperation with Amtrak and Metro-North Commuter Railroad, rail/public safety programs conducted for law enforcement highway traffic safety officers in Rochester and Buffalo, and community meetings addressing crossing safety in North Tonawanda. Similar cooperative efforts to improve safety are taking place across the Nation.

In the Pacific Northwest, an FRA motive power and equipment inspector who was making an inspection at an intermodal facility discussed the importance of crossing safety with a local safety officer from Swift Transportation, Inc. This discussion led to the inspector's being invited to give an Operation Lifesaver presentation to the drivers at the local terminal. After observing the quality of the training and realizing the importance of crossing safety, the safety officer suggested to the corporate office that the FRA's inspector's talk would benefit the entire company. A customized training video was created, with the cooperation of Washington State Operation Lifesaver, that is now a part of the training for every new driver at Swift. Over 15,000 new drivers each year now receive training about how to drive a commercial motor vehicle across a grade crossing safely.

Education and public outreach are very important components to improving safety. FRA, the Illinois Commerce Commission, and several communities in Illinois have been engaged in a demonstration project to try to quantify the effectiveness of such programs. This project utilized video cameras at eight crossings to monitor driver behavior before, during, and after programmatic education and outreach efforts. Preliminary results indicate that such programs can reduce certain types of crossing violations by up to 70 percent.

#### Encouraging Enforcement of State and Local Traffic Laws

FRA has long partnered with State and local law enforcement authorities, both police officers and judges, to encourage their enforcement of highway laws related to crossings. For example, we worked with Operation Lifesaver, railroads, and State law enforcement training officials to produce a training video aimed specifically at patrol officers to enhance their understanding of crossing safety. The Grade Crossing Collision Investigation Course, promoted

by FRA and used extensively by the Operation Lifesaver State committees, has proven to be very effective in providing tools to enable officers to be safe while investigating crossing collisions and in highlighting the importance of the role of the law enforcement community in highway-rail grade crossing safety. Since 2003, over 600 training courses have been held, and almost 13,000 law enforcement officers have received this important training.

Supporting and Conducting Crossing Accident Investigations

Because the overwhelming majority of crossing accidents are the result of risky behavior or poor judgment by a highway user, the responsibility for investigating grade crossing collisions falls primarily upon the local or State law enforcement agency. These agencies are best positioned to provide the quick response necessary in such situations and have the requisite expertise in investigating highway accidents. In most circumstances, FRA does not investigate grade crossing collisions. FRA's inspectors have a wide range of duties, including inspection of railroad track, equipment, signals, and operations; enforcement of the Federal safety laws; complaint investigation; education of the railroad industry and public on safety issues; and accident investigation. For most crossing collisions, the causes are related to driver behavior, and sending FRA inspectors lacking expertise in such matters to investigate them would divert those inspectors from other activities more likely to save lives.

However, FRA does selectively investigate a number of crossing collisions each year. FRA tries to investigate crossing collisions where its expertise in railroading is likely to be beneficial and where the event seems likely to yield important information related to regulatory compliance, improving regulations, or developing effective preventive actions within the agency's area of expertise. In 2004 and through the first five months of 2005, FRA headquarters

has assigned FRA personnel to investigate 19 crossing collisions, and during the same period FRA's regional offices have assigned FRA personnel to investigate some additional crossing collisions.

FRA investigates crossing collisions that involve major public interest (e.g., three or more fatalities), railroad responsibilities (e.g., possible improper maintenance of grade crossing warning systems or improper response to credible reports of grade crossing warning system malfunction), or impacts on railroad safety (i.e., train crew or rail passenger fatalities). FRA recently revised its instructions for headquarters-assigned investigations to clarify the parameters that will trigger an investigation and to underscore that FRA will investigate all crossing collisions involving a credible allegation that an active warning device failed to provide the required warning. Where there are credible allegations of such warning device problems, FRA's signal and train control inspectors provide unique expertise in the investigative setting. Earlier this year, FRA distributed to railroads and affected employee organizations a summary of its conclusions from three recent crossing incidents (one that had not yet led to a collision) that involved either questionable actions by a train crew or potentially unsafe design of crossing circuitry. In these situations, FRA's investigations produced findings that may contribute to prevention of similar incidents.

On May 2, 2005, FRA published a safety advisory in the Federal Register to help clarify the responsibilities of various entities involved crossing safety and the investigation of grade crossing collisions. The advisory reminds railroads that they are required by FRA regulations to report fatal crossing accidents promptly and all crossing incidents within 30 days after the month in which they occur, and to maintain the records from locomotive event recorders for every

incident that is reportable to FRA, which includes grade crossing collisions. The data must be retained for 30 days and made available to FRA and NTSB investigators. FRA performed a random sampling of six railroads in March of this year and found no incidents of noncompliance. (Effective October 1, 2005, railroads will be required to retain this data for a full year.) The safety advisory also informs local law enforcement agencies that FRA is ready to assist with crossing collision investigations, including obtaining and interpreting the data from event recorders. As stated in the Rail Safety Action Plan, FRA intends to send out this advisory through national law enforcement organizations and through contacts with local agencies. FRA has not received any requests from law enforcement agencies for assistance during this year.

Engineering

The engineering phase of FRA=s crossing safety program involves encouraging the installation and upgrading of warning devices at crossings and the elimination of grade crossings altogether. With funding from FRA=s sister agency, FHWA, pursuant to section 130 of title 23, United States Code (Section 130), States have installed and upgraded crossing warning devices, especially at the most hazardous crossings. This Section 130 funding has provided about \$155 million each year for States to use to improve public highway-rail grade crossings. At least half of the Section 130 funds must be used for installing protective devices at crossings. FHWA has defined the following grade crossing improvements as “protective devices”: installation of standard signs and pavement markings; installation or replacement of active warning devices; upgrading active warning devices, including track circuit improvements and interconnections with highway traffic signals; crossing illumination; crossing surface improvements; and general site improvements. The other half may also be spent on protective devices or on other approved

safety improvements such as grade separations or crossing closures. FHWA estimates that Section 130 funding has been responsible for construction of approximately 30,000 active crossing warning devices. Of course, over one-half of the Nation=s public crossings still have only passive warning devices, and grade crossing collisions continue to occur when motorists fail to comply with fully operational active warning devices. FRA encourages the use of additional safety measures, like traffic channelization devices at conventional gated crossings, which would enhance the effectiveness of the warning devices by making it more difficult to drive around lowered gates. Four-quadrant gate systems also are very effective in the prevention of gate violations by motorists. These additional safety measures are currently available, but their use is not widespread. We also work closely with railroads and local communities to identify crossings suitable for closure because they are either redundant or no longer needed.

FRA's Offer to Work with All Partners

As discussed in FRA's 2005 Rail Safety Action Plan, FRA is committed to working with States to improve crossing safety. In response to a recommendation from the Inspector General to encourage States to develop State-specific crossing action plans, FRA has worked closely with Louisiana to draft such a plan, as previously mentioned, which should be finalized next month. Several elements of this plan have already been set in motion, including a new State law that will give the Louisiana Department of Transportation and Development the authority to close unsafe crossings. FRA will provide the Louisiana action plan as a model to other States and encourage the development of similar plans.

FRA has also worked closely with North Carolina Department of Transportation in the development of its "Sealed Corridor" approach to crossing safety. Using a variety of safety

treatments, including traffic channelization devices at gated crossings, four-quadrant gates, and crossing closures, North Carolina has successfully treated more than 200 crossings on its high-speed rail corridor. The State has also closed 64 public and private crossings.

Just yesterday FRA announced a grant of \$250,000 to the Metrolink commuter railroad in California. The grant is being given to fund a study of the development of a sealed corridor along Metrolink's routes near Los Angeles.

In Ohio the program for reducing hazards in high-speed rail corridors authorized in section 1103(c) of title 23, United States Code (the Section 1103(c) program) provided funding to upgrade the circuitry and install constant warning time devices at Westwood Avenue, Toledo, a crossing with seven railroad tracks at the entrance to Norfolk Southern Railway Company's Toledo Airline Yard. This project was completed last year.

In Minnesota, the Section 1103(c) program is funding the construction of an overpass in Dresbach Township that will close all five crossings on the high-speed corridor once construction is finished. The overpass is built, and the road construction is needed to complete the project. In the same State, FRA has cooperated with C3 Trans System LLC, Minnesota Department of Transportation (MNDOT) Guidestar Program, and the Twin Cities and Western Railroad (TC&W), in the development of a low-cost grade crossing active warning system for the past five years. The system uses a transmitter mounted on the locomotive to activate solar-powered flashing lights that have been mounted on the existing mast holding the cross bucks. Two-way communications between the locomotive and the crossing provide the engineer with a positive signal that the crossing system has been activated. The goal is that the design and construction cost of this system would be only one-tenth of the current system cost per crossing. Testing in

“shadow mode” at 30 crossings with eight locomotives was completed in 2004, and the first six crossings to go on line became active on June 23, 2005. MNDOT will conduct an evaluation of the warning systems to determine their safety performance, operational performance, cost, reliability, and maintenance implications.

Enforcement of FRA Regulations Related to Crossing Safety

We take our responsibility to enforce the grade crossing regulations very seriously. FRA and State safety inspectors inspect crossing warning devices and audit the maintenance and inspection records of railroads to monitor compliance with regulations concerning automatic warning devices. Last year, FRA assessed civil penalties totaling \$229,000 for violations of these regulations and collected \$240,000 in settlements of civil penalty claims for (a different group of) violations of these regulations. This year FRA assessed civil penalties of \$298,000 against CSX Transportation, Inc., for violations of these regulations that contributed to a fatal crossing accident at Henrietta, New York, and the railroad has settled the case for the full amount of the original penalty. Beginning in 2006, FRA will have in place a National Inspection Plan for the Signal and Train Control discipline. This plan will make better use of data when determining where inspections of grade crossing warning devices are to be made.

FRA’s regulations require that the railroads report in writing or electronically every crossing collision to FRA within 30 days following the month in which the collision occurred. FRA performs periodic audits of railroad records to check for compliance. We also post these reports on our Web site so that they are available to the public. This publication of the reports provides a means for State agencies and others to verify that crossing collisions have in fact been reported. There have been instances when State agencies have contacted FRA to notify us that

they have records of crossing collisions that are not on our Web site. We then investigate the events and take appropriate enforcement action. FRA strongly encourages States to double-check their records and welcomes information that may be useful in making sure that all crossing collisions are reported.

Effective on May 1, 2003, FRA's regulations require an immediate telephonic report of any crossing collision that results in one or more fatalities. These calls must be made to the U.S. Coast Guard's National Response Center, which in turn will notify FRA. FRA will then determine whether the initial reports of the incident meet the criteria necessary for an investigation. There have been some situations where railroads have failed to comply with this requirement. We have instituted an audit procedure to verify that a telephonic report was made for every fatal grade crossing collision reported to us in writing. Once again we will take enforcement action as necessary to ensure compliance.

#### Engineering with New Technologies

Developing and demonstrating new technology are also a part of FRA's strategy for improving grade crossing safety. In some instances, crossing collisions have occurred, with tragic results, because of a train crew's failure to follow railroad instructions to stop the train short of the crossing and to have a crewmember "flag the crossing" (wave a warning flag instructing motorists to stop while the train is passing through the crossing) if the crossing's automatic warning device is out of service. Accidents like these remind us that current methods of train operation rely heavily on crew compliance with oral or written mandatory directives or signal indications to remain safe. The railroad operating environment is often unforgiving; failure to comply is unsafe. To compensate for these human failures and improve the safety,

security, and efficiency of freight, intercity passenger, and commuter rail service, FRA is supporting deployment of advanced signal and train control technology. These new systems, which we refer to as Positive Train Control (PTC), will use various technologies to determine the precise location of trains and to intervene, in the event of a human lapse, and automatically control train movements when necessary to prevent a collision. In the future, PTC will integrate a wide array of hazard sensors to protect train movements and will provide the platform for more cost-effective warning of motorists at highway-rail crossings. With the ability to enforce temporary speed restrictions, PTC will also ensure crew compliance with stop-and-flag requirements related to out-of-service warning devices at highway-rail crossings.

FRA has teamed with Amtrak and the State of Michigan to install an Incremental Train Control System (ITCS) on Amtrak's Michigan line to support proposed higher passenger train operating speeds on the Detroit-to-Chicago corridor. This project includes high-speed grade crossing signal pre-starts and integration of remote health monitoring for crossing signals (so that the train is slowed if proper warning to motorists will not be provided). The system has been in revenue service operation since January 2002 for both passenger and freight trains.

FRA also joined the Association of American Railroads (AAR) and the State of Illinois in developing a high-speed PTC project for the St. Louis-Chicago corridor. The project has now been integrated into the North American Joint PTC Program, a consortium consisting of representatives from FRA, State governments, the AAR, and Class I railroads, whose purpose is to promote development of standards for PTC. This project also includes the installation of four-quadrant gates at 69 crossings on the route.

FRA recently provided grants to North Carolina DOT and Norfolk Southern Railway

Company to explore methods that would allow a greater utilization of the data that are collected by digital video cameras that are installed on locomotives. Several of the Class I railroads are equipping their fleets of freight locomotive with these cameras. It is hoped that this technology will assist in determining what, if any, human factors are associated with grade crossing crashes and trespasser incidents. The second objective is to measure the performance and effectiveness of the grade crossing improvements made along the North Carolina “Sealed Corridor” and to identify locations where modifications may be necessary. From the data analysis, recommendations will be made to improve grade crossing and trespasser safety mitigation measures.

Light emitting diodes (LEDs) are being used in flashing lights units at crossings. These LEDs provide a brighter signal and are more vandal-proof than incandescent lights. Train detection circuitry has improved and is more reliable than ever before. The use of remote health monitoring is being used more often at grade crossings; this enables the crossing warning device to constantly check its circuitry to make sure that is operational and will send an alert to the railroad if it is not.

#### **Conclusion**

Advancing highway-rail crossing safety is an important responsibility shared by many-highway users, State highway officials, local law enforcement, railroads and railroad employees, several DOT agencies, including FRA, and Congress, which provides a significant portion of the funding used to make improvements in crossing safety. Together, we are making headway in saving lives at crossings; however, continuous innovation and continued investment are important to counteract the growth of highway and rail traffic and to secure the safety of the

general public at crossings, whether they be pedestrians, drivers, bus riders, or locomotive crews.

This hearing will help focus attention on how all of us who share this responsibility can

contribute to continued improvement in this important intermodal safety issue.

**APPENDIX I: State Inspectors by Inspector Discipline**

**State Inspectors by Inspection Discipline**

State	Track	Equipment	Operating Practices	Hazardous Materials	Signal & Train Control	Grade Crossing	Total
AL	1	2	0	0	0	0	3
AZ	1	1	1	1	1	0	5
CA	4	5	8	3	2	0	22
FL	2	1	2	1	1	0	7
ID	0	0	0	1	0	0	1
IL	2	0	1	2	3	0	8
IA	2	0	0	0	0	0	2
ME	2	0	0	0	0	0	2
MD	1	2	1	0	0	0	4
MA*	0	0	0	0	0	0	0
MS*	0	0	0	0	0	0	0
MO	2	0	2	0	0	2	6
MT	0	2	0	0	0	0	2
NE	1	1	0	0	0	0	2
NV	1	1	1	1	0	0	4
NH	1	0	0	0	0	0	1
NJ	0	0	0	1	0	0	1
NM	0	0	1	0	0	1	2
NC	1	1	0	0	1	0	3
NY	3	4	0	0	0	0	7
OH	2	2	3	3	0	4	14
OR	2	3	1	1	0	2	9
PA	3	2	1	1	0	0	7
SC	1	1	0	0	0	0	2
TN	3	1	2	0	2	0	8
TX	3	3	5	2	1	0	14
UT	1	0	0	0	0	0	1
VA	2	1	0	0	0	0	3
WA	2	0	1	1	0	1	5
WV	2	3	2	1	2	0	10
<b>Total</b>	<b>45</b>	<b>36</b>	<b>32</b>	<b>19</b>	<b>13</b>	<b>10</b>	<b>155</b>

\* Massachusetts and Mississippi currently have no inspectors, but are actively considering participation options.

**APPENDIX II****The Railroad Industry's Safety Record**

The railroad industry's overall safety record is very positive, and most safety trends are moving in the right direction. While not even a single death or injury is acceptable, progress is continually being made in the effort to improve railroad safety. This improvement is demonstrated by an analysis of FRA's database of railroad reports of accidents and incidents that have occurred over the roughly two and a half decades from 1978 through 2004. (The low point of rail safety in recent decades was 1978, and 2004 is the last complete year for which data--though preliminary--are available.) Between 1978 and 2004, the total number of rail-related accidents and incidents has fallen from 90,653 to 13,997, an all-time low representing a decline of 85 percent. Between 1978 and 2004, total rail-related fatalities have declined from 1,646 to 899, the second-lowest number on record and a reduction of 45 percent. From 1978 to 2004, total employee cases (fatal and nonfatal) have dropped from 65,183 to 5,847, the record low; this represents a decline of 91 percent. In the same period, total employee deaths have fallen from 122 in 1978 to 25 in 2004, a decrease of 80 percent.

Contributing to this generally improving safety record has been a 71-percent decline in train accidents since 1978 (a total of 3,179 train accidents in 2004 compared to 10,991 in 1978), even though rail traffic has increased. (Total train-miles were up by 2.3 percent from 1978 to 2004.) In addition, the year 2004 saw only 29 train accidents, out of the 3,179 reported, in which a hazardous material was released, with a total of only 47 hazardous materials cars releasing some amount of product, despite 1.7 million movements of hazardous materials by rail.

In other words, over the last approximately two and a half decades, the number and rate of train accidents, total deaths arising from rail operations, employee fatalities and injuries, and

hazardous materials releases--all have fallen dramatically. In most categories, these improvements have been most rapid in the 1980s, and tapered off in the late 1990s. Causes of the improvements have included a much more profitable economic climate for freight railroads following deregulation in 1980 under the Staggers Act (which led to substantially greater investment in plant and equipment), enhanced safety awareness and safety program implementation on the part of railroads and their employees, and FRA's safety monitoring and standard setting (most of FRA's safety rules were issued during this period). In addition, rail remains an extremely safe mode of transportation for passengers. Since the year 1978, more than 10 billion passengers have traveled by rail, based on reports filed with FRA each month. The number of rail passengers has steadily increased over the years, and in 2004 there were more than 534 million. No rail passengers were killed in train collisions and derailments in 2004, but one rail passenger was killed in a highway-rail grade crossing accident in 2004. On a passenger-mile basis, with an average about 15.5 billion passenger-miles per year, rail travel is about as safe as scheduled airlines and intercity bus transportation and is far safer than private motor vehicle travel. Rail passenger accidents--while always to be avoided--have a very high survival rate.

As indicated previously, not all of the major safety indicators are positive. In recent years, rail trespasser deaths have replaced grade crossing fatalities as the largest category of deaths associated with railroading. (Highway-rail and trespassing deaths account for 95 percent of the 899 total rail-related deaths in 2004.) In 2004, a total of 483 persons died while on railroad property without authorization; fortunately, this was a decrease of nearly four percent from the previous year. Further, significant train accidents continue to occur, and the train accident rate has not declined at an acceptable pace in recent years and actually rose slightly in

2003 and 2004 compared to that in 2002. The causes of train accidents are generally grouped into five categories: human factors; track and structures; equipment; signal and train control; and miscellaneous. The great majority of train accidents are caused by track and human factors, and human factor accidents are growing in number. In recent years, most of the serious events involving train collisions or derailments resulting in release of hazardous material, or harm to rail passengers, have resulted from human factor or track causes. Accordingly, as discussed in FRA's new Rail Safety Action Plan (at Appendix III), human factors and track are the major target areas for improving the train accident rate.

### **Appendix III: FRA's Rail Safety Action Plan**



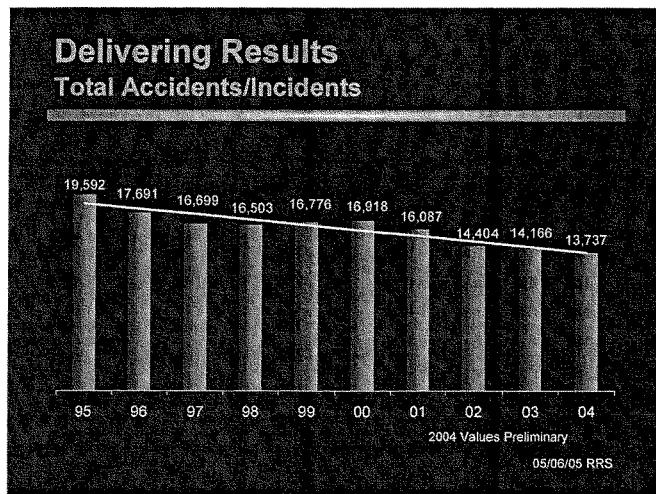
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Federal Railroad  
Administration

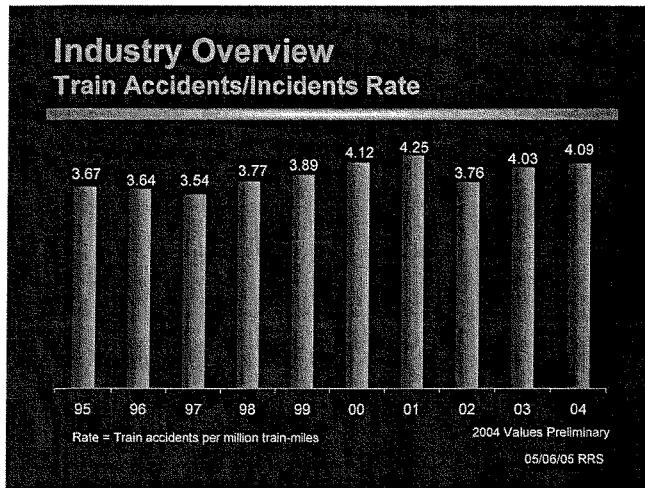
## Federal Railroad Administration Action Plan for Addressing Critical Railroad Safety Issues

For Release: May 16, 2005

### Introduction

The railroad industry's overall safety record has improved over the last decade and most safety trends are moving in the right direction. However, significant train accidents continue to occur, and the train accident rate has not shown substantive improvement in recent years. Moreover, recent train accidents have highlighted specific issues that need prompt government and industry attention, and the strong growth of rail and highway traffic continue to drive up exposure at highway-rail grade crossings. The Federal Railroad Administration (FRA) is aggressively addressing these critical issues and implementing the plan outlined below to improve railroad safety.





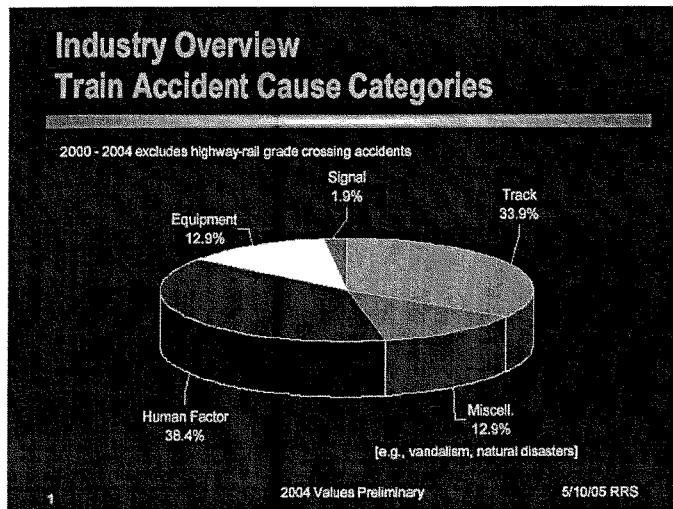
The FRA's safety program is increasingly guided by careful analysis of accident, inspection, and other safety data. FRA attempts to direct both its regulatory and compliance efforts toward those areas involving the highest safety risks. This proactive approach to managing risks is constantly being honed and improved. This action plan embodies that approach and will:

- Target the most frequent, highest risk causes of accidents;
- Focus FRA's oversight and inspection resources; and
- Accelerate research efforts that have the potential to mitigate the largest risks.

The FRA's plan includes initiatives in several areas: reducing human factor-caused train accidents; acting to address the serious problem of fatigue among railroad operating employees; improving track safety; enhancing hazardous materials safety and emergency preparedness; better focusing FRA's resources (inspections and enforcement) on areas of greatest safety concern; and improving highway-rail grade crossing safety.

As illustrated by the following graphic, the great majority of train accidents are caused by track and human factors, and human factor accidents are growing in number. The causes of train accidents are generally grouped into five categories: human factors, track and structures, equipment, signal and train control, and miscellaneous. Two categories of accidents—those caused by defective track and those caused by human factors—comprise more than 70 percent of all train accidents and a very high percentage of serious train accidents are, accordingly, the major target areas for improving the accident rate. In recent years, most of the serious events

involving train collisions or derailments resulting in release of hazardous materials, or harm to rail passengers, have been caused by human factor or track causes.



### Reducing Human Factor Accidents

Human factors constitute the largest category of train accidents, accounting for 38 percent of all train accidents over the last five years. Based on preliminary findings, and subject to revision when the investigation is complete, the tragic accident in Graniteville, South Carolina on January 6, 2005, stemmed from a human factor: the failure of a train crew to properly line a switch for mainline movement when the crew was going off duty. The next train to traverse that main track hours later was directed onto the wrong track, where it collided with a standing train. As a result, chlorine was released from a tank car in the moving train; nine people died from inhaling the chlorine vapor, and 529 people sought medical care. FRA acted immediately by issuing a Safety Advisory on January 10, 2005, strongly urging all railroads to adopt revised procedures to guard against such a human mistake. Railroads responded swiftly and favorably by adopting those recommendations.

**Address leading human factor causes.** The FRA's analysis of train accident data has revealed that a small number of particular kinds of human errors are accounting for an inordinate number of human factor accidents. For example, the top ten human factor causes accounted for 58 percent of all human factor accidents in 2004. The leading cause was improperly lined switches, which alone accounted for more than 16 percent of human factor accidents in the last four years. Other leading causes include shoving cars without a person on the front of the move to monitor

conditions ahead, leaving cars in a position that obstructs (fouls) a track, and failure to secure a sufficient number of handbrakes.

#### Top Human Factor Causes (Train Accidents)<sup>1</sup>

Four-Year Totals (2001 – 2004)

Cause code	Number	Percent of human factor train accidents
H702 Switch improperly lined	751	16.4
H306 Shoving movement, absence of person on point	510	11.2
H307 Shoving movement, failure to control	193	4.2
H302 Cars left out to foul	190	4.2
H704 Switch previously run through	181	4.0
H018 Failure to secure hand brake	163	3.6
H020 Failure to apply sufficient hand brakes	163	3.6
H312 Passed couplers	137	3.0
Total		50.2

At present, few of these kinds of mistakes are prohibited by FRA regulations. (In the examples given above, only the failure to secure a sufficient number of handbrakes is covered by a regulation.) Instead, they are addressed by each railroad's operating rules, which subject employees who violate them to discipline, including dismissal. FRA's regulations require railroads to train their employees on these rules and to test them periodically on their compliance with those rules.

The frequency with which these sorts of operating rule violations result in accidents requires a concentrated effort to reduce such violations. FRA believes a federal regulation prohibiting such actions will provide heightened visibility and operational focus leading to a reduction in their frequency. Even though the vast majority of these accidents occur on low speed tracks and do not often involve loss of life, they always create the potential for serious injury and death and, as the Graniteville accident illustrates, can sometimes occur on higher speed track with tragic consequences. Accordingly, FRA will ask its chartered advisory committee, the Railroad Safety Advisory Committee (RSAC), to develop recommendations for a rule that would address these sorts of human errors. FRA will set a tight but reasonable timetable for receiving those recommendations. Should RSAC not accept the task or produce timely recommendations, FRA will act without RSAC's advice. The result should be regulations (or, perhaps, a non-regulatory

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<sup>1</sup>Omits certain causes for which determining compliance objectively would be difficult (e.g., buff/slack action excessive).

alternative) that go to the heart of the leading causes of human factor accidents. FRA conducted a Human Factors Workshop on April 14 with principal railroad and labor organizations to set the stage for presentation of this task to the RSAC on May 18. **Target for proposed rule:** September 2006.

**Develop close call data to reveal reasons for human failures.** In other industries such as aviation, implementation of “close call” reporting systems that shield the reporting employee from discipline (and the employer from punitive sanctions levied by the regulator) have contributed to major reductions in accidents. In March of 2005, FRA completed an overarching memorandum of understanding with railroad labor organizations and management to develop pilot programs to document close calls, i.e., unsafe events that do not result in a reportable accident but very well could have. Participating railroads will be expected to develop corrective actions to address the problems that may be revealed. The aggregate data may prove useful in FRA’s decision-making concerning regulatory and other options to address human factor-caused accidents. Experiences on the Norwegian railway (Sernbaneverket), showed a 40 percent reduction in accidents after three years of implementation of a similar program. In a manufacturing environment, Syncrude, a mining company, experienced a 33 percent reduction in lost time frequency after one year of implementing a close call system. **Target to commence pilot project on one or more railroads:** February 2006.

### **Addressing Fatigue**

Fatigue has long been a fact of life for many railroad operating employees, given their long and often unpredictable work hours and fluctuating schedules. The hours of service law sets certain maximum on-duty periods (generally 12 hours for operating employees) and off-duty periods (generally 8 hours, or if the employee has worked 12 consecutive hours, a 10-hour off-duty period is required).

FRA’s knowledge of the industry’s work patterns and the developing science of fatigue mitigation, combined with certain National Transportation Safety Board investigations showing employee fatigue as a major factor, have persuaded FRA that fatigue is very likely at least a contributing factor in a significant number of human factor accidents. To try to obtain better information on the subject, FRA revised its own accident investigation procedures in 2004 to ensure that FRA investigators collect information on employees’ sleep/rest cycles and evaluate fatigue as a factor.

**Accelerate research.** FRA is accelerating its ongoing research aimed at validating and calibrating a fatigue model (which has already been proven in the laboratory by the Department of Defense) that can be used to (i) more precisely determine the role of fatigue in human factors accidents and (ii) improve crew scheduling by evaluating the potential for fatigue given actual crew management practices. When the model is properly validated, it will be made available to railroads and their employees as foundation for developing crew scheduling practices based on the best current science. The work plan for model validation will also provide a much more

precise accounting of the role of fatigue (including acute fatigue, cumulative fatigue, and "circadian" or time-of-day effects) in train accidents. **Target for final report:** December 2005.

### **Improving Track Safety**

Track-caused accidents comprised 34 percent of all train accidents over the last five years. However, the trend is positive. The absolute number of such accidents was down considerably in 2004, as was the rate of track-caused accidents. FRA believes that one important factor in reducing this rate was the agency's conscious attempt, starting in 2003, to focus its track inspectors on the areas of highest risk, and to encourage them to take enforcement action on the kinds of regulatory violations that are the leading causes of track-caused accidents. This data-based approach has shown great benefits and will continue.

**Deploy technology for track safety.** However, some of the leading causes of accidents in this area are very difficult to detect in normal railroad inspections. Broken joint bars, for example, are a leading cause, but the kinds of cracks in those bars that foreshadow a derailment-causing break are very hard to spot with the naked eye in normal inspections. Similarly, broken rails account for some of the most serious accidents, but the internal flaws that lead to many of those breaks can be detected only by specialized equipment. FRA is conducting research to enhance the detection capability in both of these areas. For example, FRA is conducting research and demonstration to develop a system that can capture images of joint bars from a hy-rail vehicle or other on-track equipment and analyze the images to detect cracks. FRA is also researching technologies that will alert train crews to broken rails before they approach them. In both these cases, FRA's research will include analysis of the costs and safety benefits of adopting these methodologies. FRA has identified both a way to accelerate the development of these projects and funds with which to do so. **Target for demonstration of joint bar imaging system:** October 2005.

Subtle track geometry defects are also difficult to identify in walking or hy-rail inspections. The FRA is procuring two additional track geometry cars to complement the existing state-of-the art vehicle (T-2000). This additional capability will permit FRA to cover major hazardous materials and passenger routes, while also having the ability to follow up more quickly on routes where safety performance is substandard. **Target for second car (towed) to be operational:** September 15, 2006. **Target for third car (self-propelled) to be operational:** December 15, 2006.

### **Improving Hazardous Materials Safety and Emergency Response Capability**

Generally, the rail industry's record on transporting hazardous materials is very impressive. The industry transports roughly 1.7 million shipments of hazardous materials annually, ordinarily without incident. During the period 1994 through 2004, a total of nine fatalities resulted from the release of hazardous materials in train accidents. In 2003, there were 27 train accidents involving the release of hazardous materials, which is the second lowest number ever recorded; in 2004, there were 29 such events. However, the Graniteville accident, which involved nine

deaths as the result of the release of hazardous materials, demonstrates the potential for serious consequences from train accidents. FRA is engaged in a variety of activities intended to both reduce the likelihood that a train accident will result in a hazardous materials release and to ensure that, if a release occurs, local emergency responders will be fully prepared to minimize the damage and loss of life that might occur.

**Identify promising technologies for reduction of train accident risk in dark (non-signalized) territory where hazardous materials are transported, particularly materials toxic by inhalation.** FRA is reviewing technological options for reducing risk on lines where traffic levels would not support installation of signal or train control systems. Options include switch position detection tied to various means of communication, low-cost circuits to detect broken rails, and procedural changes in the railroads' operations.

**Ensure that emergency responders have timely access to hazardous materials information.** Railroads and hazardous materials shippers are currently subject to hazard communication requirements of the Hazardous Materials Regulations, and in addition these industries work through the American Chemistry Council's Responsible Care Program (and the affiliated TRANSCAER® effort) to familiarize local emergency responders with railroad equipment and product characteristics. The Association of American Railroads (AAR) also offers hazardous materials incident response training at the Transportation Technology Center (Pueblo, CO), including hands-on familiarization with railroad tank car valves and fittings and a full-scale derailment simulation exercise with actual rolling stock. The Pipeline and Hazardous Materials Safety Administration (PHMSA) (in concert with sister agencies in Canada and Mexico) publishes the Emergency Response Guidebook, with the intention that it may be found at virtually every firehouse and in every response vehicle on the North American continent. **On March 1, 2005, with FRA encouragement, the AAR amended its Recommended Operating Practices for Transportation of Hazardous Materials (Circular No. OT-55-G) to expressly provide that local responders, upon written request, will be provided with a ranked listing of the top 25 hazardous materials transported through the community.** This is an important step, which establishes a procedure for bona fide planning and response organizations to receive this information. However, these efforts alone have not been sufficient for some local responders to gain confidence in handling hazardous materials incidents.

Despite requirements that train crews possess current hazardous materials information, including 24-hour shipper contact information, despite the fact that every hazardous materials car is placarded using an internationally recognized system, and despite the fact that the American Chemistry Council maintains a 24-hour "CHEMTREC" service that provides expert advice on handling these events, including direct links to product manufacturers, issues occasionally arise regarding the availability of information following a major train accident or non-accident release. FRA is currently undertaking a project to provide avenues that enhance emergency response information availability to personnel responding to an accident/incident involving hazardous materials. Recognizing the strong interest in establishment of a redundant system that could be employed if other information delivery methods fall short during the early minutes following an accident, FRA has approached the AAR and requested that it utilize its RAILINC subsidiary to

“push down” train consist information, including hazardous materials information, to emergency responders using a system such as the following:

- Participating railroads (who are responsible for greater than 85 percent of the transportation in question) would, upon receiving notice of a derailment involving hazardous materials, notify all emergency response dispatchers in the area (directly or through existing mutual help channels) and invite them to download, from a secure web site maintained by RAILINC, current consist and hazmat information;
- Responders would use existing internet access and receive the documents in a standard format, such as a “pdf” or rich text file; and
- The transmission would include a railroad operations contact number for follow-up.
- Alternatives options are being considered to identify stake-holders’ needs.

This type of system could also be used to “pull down” hazardous materials information in a case where the response organization has identified an apparent non-accident release of which the railroad is unaware. **Target for pilot start-up for new hazmat information delivery program:** July 2005.

**Accelerate tank car structural integrity research.** FRA has already begun research arising from the Minot, North Dakota, accident in 2002, which resulted in one death and 11 injuries due to the release of anhydrous ammonia. Current research involves a 3-step approach to assess the consequences of tank cars involved in derailments. The first phase is development of a physics-based model to analyze the kinematics of rail cars in a derailment. The second phase is development of the dynamic structural analysis models. The third phase is an assessment of the damage created by puncture and entails the application of fracture mechanics testing and analysis methods. The Volpe National Transportation Systems Center is doing the modeling work now. Work on tank car structural integrity will also be applicable to the MacDona, Texas, accident (a release of chlorine that killed three people in June 2004) and the Graniteville accident. **Target for completion of research:** As early as December 2006, if necessary additional funding is made available, but not later than July 2008.

### Strengthening the FRA Compliance Program

**Make better use of data.** The Office of the Inspector General (OIG) has recommended that FRA submit to the Secretary a comprehensive plan for implementing a program that makes meaningful use of available data to focus inspection activities, assess whether traditional enforcement techniques should be substituted for a partnership approach, and determine appropriate fines where warranted. FRA’s response to OIG contains the essential elements of the plan. As the OIG recognized, FRA had begun developing a new National Inspection Plan (NIP) process prior to the subject audit. FRA has also made extensive use of accident and inspection data to target compliance problems. FRA agrees that integration and extension of this effort is desirable and should be useful to help make our programs more efficient and effective.

Important attributes of the plan are as follows:

- Beginning with the operating practices (human factors), track and motive power and equipment disciplines, FRA will implement a new NIP. The NIP is an inspection allocation program that uses predictive indicators to distribute inspection activities within a region by railroad and by State;
- Following validation of the NIP through evaluation of experience under the new allocation formulas, FRA will review resource allocation among the regions and technical disciplines. Pending NIP validation, FRA will employ conscious priorities based upon observed, quantitative outcomes to allocate human resources;
- Within the NIP inspection allocations, FRA will specify major program priorities based on analysis of available data. Reduction of human factors- and track-caused train accidents will constitute the initial areas of emphasis; and
- FRA will specify additional leading indicators and outcomes to be tracked by headquarters and regional specialists and will begin to build standard queries to simplify data dissemination and analysis.

**Target met:** On April 29, 2005, FRA regions commenced use of the core features of the new NIP for allocation of inspection effort. This initial implementation covers track and human factors (operating practices), the areas responsible for over two-thirds of train accidents.

**Target for full implementation in all disciplines:** January 2006.

#### **Fostering Further Improvements in Highway-Rail Grade Crossing Safety**

Deaths in grade crossing accidents are the second-leading category of deaths associated with railroading (trespasser fatalities are the leading category). The number of grade crossing deaths has declined substantially in recent years. For example, 331 persons died in these accidents in 2003, as compared to 615 in 1994. The decline over that decade was steady. However, the growth in rail and motor vehicle traffic continues to present challenges, as evidenced by an increase in crossing fatalities in 2004 over 2003. The Secretary's 2004 Action Plan for Highway-Rail Crossing Safety and Trespass Prevention sets forth a series of initiatives in the fields of engineering, education and enforcement. In the near-term, FRA will stress the following actions that are consistent with the themes of the Plan.

**Build partnerships with State and local agencies; call railroads' attention to their crossing safety duties.** FRA will issue and widely disseminate information concerning its capabilities to obtain locomotive event recorder data and to evaluate the sound functioning of warning systems, so that local crossing investigations are supplemented, as needed, with information from the rail side. FRA will also disseminate information derived from recent accidents that indicates the need for action by the railroads to review warning circuitry and train their employees. **Target met:** A Safety Advisory addressing issues related to grade crossing safety was published in the Federal Register on May 2, 2005. FRA will disseminate this advisory through national law enforcement organizations and through contacts with local agencies. On May 18, FRA will separately brief the RSAC on safety issues related to circuit design and crew performance related to warning device functioning.

FRA is also working with the State of Louisiana to assist the State in developing its own Action Plan for highway-rail crossing safety. This effort was launched by the Governor at the Emergency Crossing Safety Conference during March 2005. Among other ideas, FRA will offer for consideration the new "corridor risk index" approach to resource allocation that was developed for use in the final rule on Use of Locomotive Horns at Highway-Rail Grade Crossings, published on April 27, 2005. **Target for development of Louisiana State Action Plan: August 2005.**

In addition, FRA will work with the grade crossing safety community to determine appropriate responses to the growth in pedestrian fatalities at highway-rail crossings, which accounted for a substantial portion of the increase in crossing fatalities in 2004.

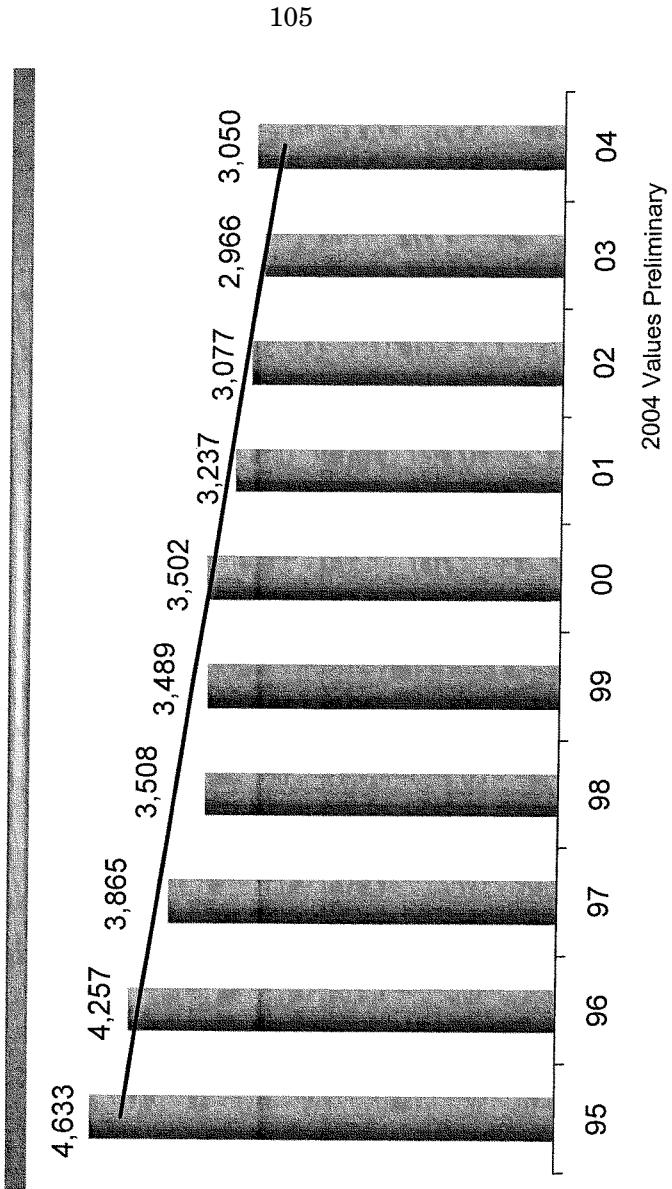
#### Conclusion

The FRA's action plan sets the course for continuing the improving trends in railroad safety that has occurred over the last decade. The plan is based on analysis of relevant safety data, FRA's extensive experience on safety issues, and additional needs identified as the result of recent accidents.

**Appendix IV: Statistics on Grade Crossing Accidents, 1995-2004**

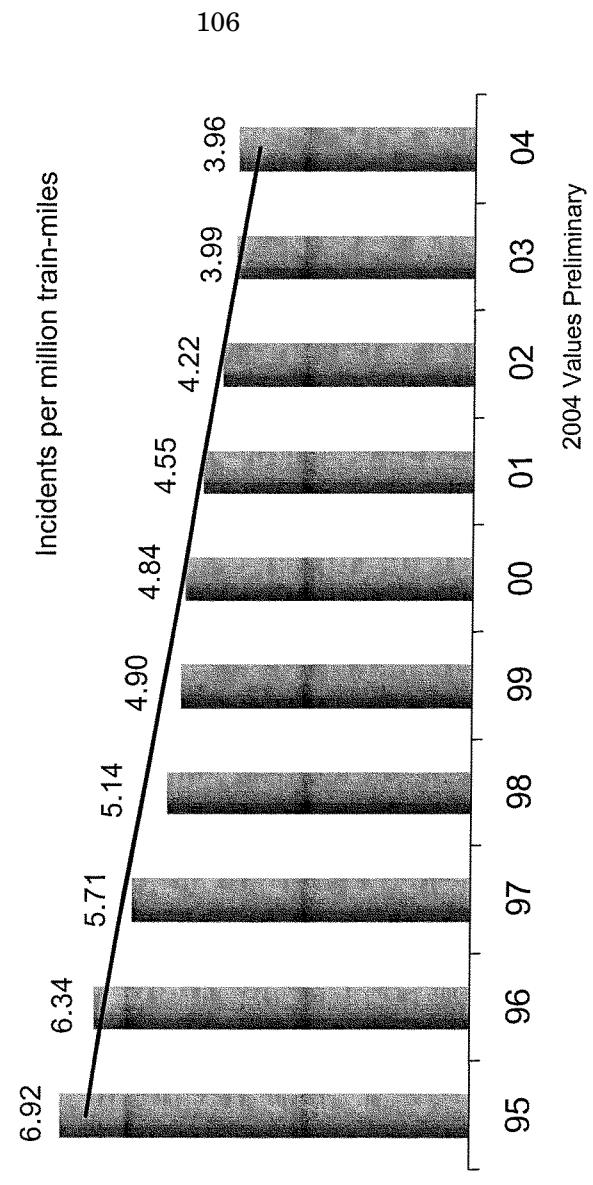
## Delivering Results

### Highway-Rail Incidents



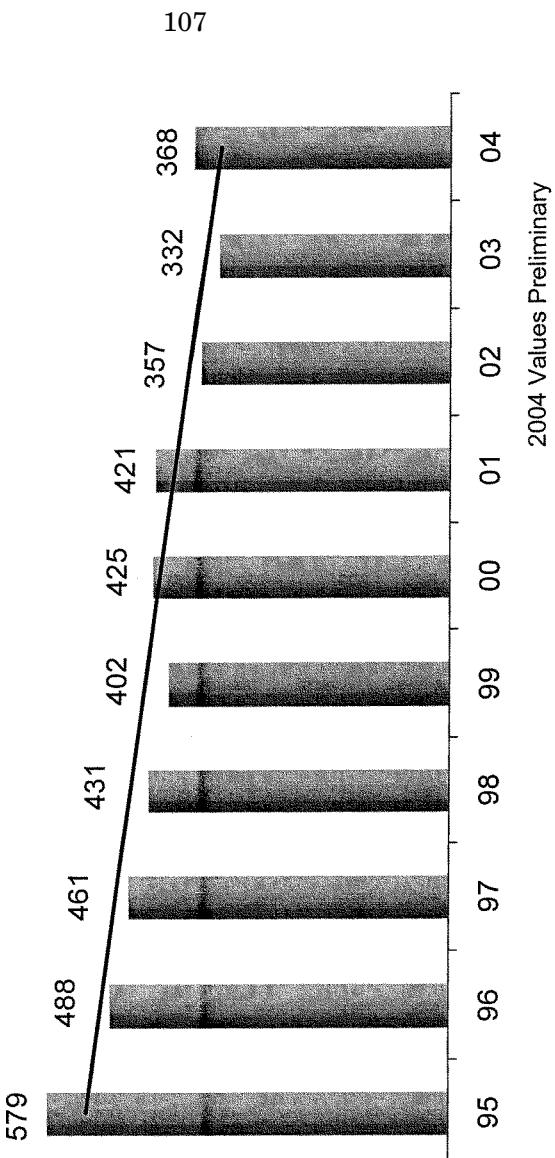
## Delivering Results

### Highway-Rail Incidents Rate



## Delivering Results

### Highway-Rail Fatalities



**Federal Railroad Administration' Inserts to the Record  
of Administrator Joseph H. Boardman's Testimony  
before the Subcommittee on Railroads  
of the Transportation and Infrastructure Committee,  
U.S. House of Representatives,  
on July 21, 2005**

**Questions from Congressman Blumenauer:**

1. **Question:** How many highway-rail grade crossings are there in the U.S., and by how much has that number been reduced in the last 30 years?

**Answer:** In 1975 there were 219,161 public crossings and 142,291 private crossings--a total of 361,452 highway-rail grade crossings. As of June 2005, there were 147,136 public crossings and 94,412 private crossings--a total of 241,548 highway-rail grade crossings. Accordingly, the total number of grade crossings has been reduced by one-third (119,904) during the last 30 years. It should be noted, however, that a substantial portion of the reduction was due to abandonment of rail lines. Consolidation of crossings on active rail lines requires painstaking work by State agencies and railroads, with assistance from a clear national policy articulated by the Secretary of Transportation.

I would like to emphasize that the Secretary of Transportation's 2004 Action Plan provides a broad and useful charter for improving highway-rail crossing safety. It embodies strategies that are embraced by States, railroads, the highway engineering community and other stakeholders. Only by working together can we make further progress in addressing this intermodal problem. To work together successfully, we need to begin with mutual respect.

2. **Question:** Please compare the number of aviation and rail fatalities over the last 10 years.

**Answer:** Between 1995 and 2004, the total number of rail-related fatalities decreased by about 22 percent, from 1,146 to 899. Over the same period, the number of aviation-related fatalities reported by the National Transportation Safety Board (NTSB) fell about 34 percent, from 964 to 635. These numbers are not strictly comparable, however, because FRA and NTSB employ different definitions of a reportable fatality; NTSB includes those occurring within 30 days of an accident, while the FRA includes those occurring within 365 days of the accident. Furthermore, the NTSB indicates that the most commonly cited causal factor in aviation accidents involves aviation personnel.<sup>1</sup> Railroad fatalities, on the other hand, occur predominantly (more than 90 percent each year) in accidents involving either trespassers at points other than at grade crossings or motorists, pedestrians, and trespassers that use grade crossings.

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<sup>1</sup> NTSB, Annual Review of Aircraft Accident Data: U.S. Air Carrier Operations Calendar Year 2000, ARG-04-01, adopted on 6/17/2004.

Even though the major portion of railroad fatalities occur in these populations over which the railroads and FRA have no jurisdiction, extensive public outreach and other safety efforts have managed to reduce fatalities even in these categories. Consequently, there has been a 36-percent reduction in the number of crossing fatalities during this time period.

Year	Railroad Fatalities 1995-2004					Aviation Fatalities 1995-2004 <sup>a</sup>				
	Train Accident Fatalities	Grade Crossing Accident Fatalities	Other Accident Fatalities	Trespasser Fatalities	All Rail Fatalities	Large Airlines Fatalities	Commuter Airlines Fatalities	On-Demand Air Taxi Fatalities	General Aviation Fatalities	All Aviation Fatalities
1995	11	579	62	494	1,146	168	9	52	735	964
1996	23	488	57	471	1,039	380	14	63	636	1093
1997	13	461	56	533	1,063	8	46	39	631	724
1998	3	431	38	536	1,008	1	0	45	625	671
1999	8	402	43	479	932	12	12	38	619	681
2000	8	425	41	463	937	92	5	71	596	764
2001	5	421	34	511	971	531	13	60	562	1166
2002	11	357	43	540	951	0	0	35	581	616
2003	2	332	30	501	865	22	2	42	632	698
2004 <sup>b</sup>	12	368	36	483	899	14	0	65	556	635

a. Source: National Transportation Safety Board

b. Data for 2004 are preliminary

**3. Question:** Please compare the amount of Federal funds that are expended for investigating aviation and rail accidents.

**Answer:** The following table represents the amount of Federal expenditures in 2004 for investigating railroad and aviation accidents:

Agency	Railroad Investigations	Aviation Investigations
NTSB	\$2.059M	\$16.691M
FRA	\$1.504M	-----
FAA	-----	\$4.5M
Total	\$3.563M	\$21.191M

**4. Question:** What is FRA's accident investigation policy, including its highway-rail grade crossing accident investigation policy? Should FRA change its grade crossing accident investigation policy?

**Answer:** The purpose of a railroad accident investigation is to promote safety in every area of railroad operations and reduce railroad-related accidents and incidents. To accomplish

these objectives, the FRA investigator must determine the root cause of the accident/incident. Understanding the root cause allows the railroad or FRA, or both, to implement proper remedial action to prevent similar future occurrences. This remedial action could range from the railroad repairing defective track to FRA developing a new regulation or safety standard.

An accident/incident may be assigned for investigation by either headquarters or the regions. Headquarters accident/incident assignment determinations are guided, in general, by the criteria shown below. Regional assignments may also be determined by local history involving a particular railroad or area. There is no practical distinction between those accidents/incidents assigned from headquarters and those assigned from the regional level. Either will require every effort to fully develop the root cause of the accident/incident being investigated.

FRA headquarters generally investigates accidents and incidents meeting any of the following criteria:

- § Any collision, derailment, or passenger train incident resulting in at least one fatality or serious injury to railroad passengers or crew members, including highway-rail crossing accidents;
- § Any railroad-related accident resulting in the death of an on-duty railroad employee, including an employee of a contractor to a railroad, regardless of craft;
- § Any highway-rail grade crossing accident resulting in:
  - Death to one or more persons in a commercial vehicle or school bus;
  - Serious injury to several persons transported by such vehicles; or
  - Death to three or more persons in a private highway vehicle;
- § Any highway-rail grade crossing accident involving a malfunction or failure of an active warning device that allegedly contributed to or caused the accident, whether or not an injury or fatality resulted;
- § Any train accident/incident with damages exceeding \$1 million;
- § Any non-casualty train accident resulting in derailment of a locomotive and/or large number of cars, and extensive property damage;
- § Any train accident/incident resulting in fire, explosion, or release of classified hazardous materials, especially if it exposed a community to these hazards or the threat thereof;
- § Any nuclear train accident/incident;
- § Any train incident involving run-away equipment, with or without locomotives;
- § Any collision involving maintenance-of-way or hi-rail equipment;
- § Any accident caused by failure of a locomotive or any part of a locomotive, or a person coming in contact with an electrically energized part that resulted in serious injury or death of one or more persons;
- § Any accident/incident likely to arouse considerable public interest; or
- § Any passenger train accident/incident resulting in damage (railroad and non-railroad property) of \$25,000 or more.

FRA believes that these criteria are appropriate and fully support FRA's safety mission. FRA must judiciously exercise its discretion to investigate accidents, because its inspectors have such a broad array of other safety duties, including inspection and enforcement activities. Accordingly, FRA must confine its accident investigations to those events most likely to yield

important information for use in achieving regulatory compliance, improving regulations, or fashioning other countermeasures. These are often cases where significant harm to multiple members of the public, railroad passengers, railroad personnel or property—or strong public interest in the circumstances (e.g., involvement of a school bus)—warrant use of agency resources. These criteria enable FRA to focus on investigating rail accidents that will help it fulfill its mission.

FRA and its predecessor agency, the Interstate Commerce Commission, have investigated railroad accidents for over 90 years. We have had it suggested to us that FRA should investigate more grade crossing accidents, and if we need to do so we will. On May 2, 2005, we published a Safety Advisory that offers FRA assistance whenever a State or local law enforcement agency requires rail expertise or the good offices of our agency to develop the relevant facts following a grade crossing accident. We have invited these agencies to contact us in cases where there is credible evidence that a warning device malfunctioned, for example. Although we have been disseminating this Advisory widely in the law enforcement community, we have not been receiving many requests for assistance so far.

As we have explained at some length, most (but certainly not all) of these events involve highway-side issues, particularly motorist compliance, as central factors. We remain hopeful that the criteria that we have established, coupled with strong liaison with the law enforcement community, will cause us to be involved in the investigation of the relatively small number of these events where FRA can be helpful in developing the facts, as well as potential preventive measures for the future.

5. **Question:** Should some sort of minimum investigation be mandated any time there is a death that is related to a railroad accident?

**Answer:** FRA did look at preliminary FRA accident reporting data for calendar year 2004 to gage the level of effort that would be necessary to investigate every fatal railroad accident. In that year, 899 people died in a total of 839 fatal railroad accidents/incidents. The 839 fatal railroad accidents/incidents included 476 fatal trespasser accidents/incidents and 319 fatal crossing accidents/incidents. Currently, FRA does not have enough resources to investigate every fatal railroad accident.

FRA's experience is that incidents involving trespasser fatalities are generally the result of intentional or reckless behavior of the trespasser (e.g., walking, sitting, or lying on the railroad tracks) and are investigated by local or State police agencies. As a result, an FRA investigation of a trespassing accident would not normally add very much to the understanding of the accident. FRA has found that highway-rail grade crossing accidents are generally the result of motorist error and are investigated by local or State police agencies. Consequently, an FRA investigation of a crossing accident would usually not be of any particular additional benefit. An investigation of every fatal railroad accident/incident would divert FRA inspectors from investigating the kinds of fatal railroad accidents/incidents where they usually could make a substantial contribution (e.g., switching accidents, derailments, and train-to-train collisions).

As noted above, with respect to grade crossing accidents, FRA investigates accidents that involve significant public interest (e.g., three or more fatalities), railroad responsibilities (e.g.,

improper maintenance of grade crossing warning systems, improper response to credible reports of grade crossing warning system malfunction, etc.), or broader impacts on railroad safety (e.g., train crew or passenger fatalities). A requirement to investigate every fatal accident would divert resources from tasks that would promote safety more effectively. FRA has a huge body of Federal railroad safety regulations to enforce and receives a large number of specific safety complaints that must be investigated. FRA believes that its current investigative policy provides the best use of its resources toward overall improvement in railroad safety. FRA stands ready to provide technical assistance to local law enforcement agencies when requested, and through our May 2, 2005 Safety Advisory and other means, we are reaching out to those agencies to extend that assistance.

**6. Question:** Should FRA's accident reporting regulations be amended to require reporting any time there is a death or serious injury?

**Answer:** FRA's telephonic (immediate) notification regulation at Section 225.9 could be changed by rulemaking to add a new requirement for railroads to report every death and serious injury to any type of person. However, FRA believes this change would result in an increased burden on railroads, the National Response Center, and FRA, without delivering a clear benefit toward enhancing railroad safety.

Presently, Section 225.9 contains the following criteria for telephonically reporting fatalities and serious injuries:

- (1) Death of a rail passenger or a railroad employee;
- (2) Death of an employee of a contractor to a railroad performing work for the railroad on property owned, leased, or maintained by the contracting railroad;
- (3) Death or injury of five or more persons;
- (4) A train accident that results in serious injury to two or more train crewmembers or passengers requiring their admission to a hospital; or
- (5) A fatality at a highway-rail grade crossing as a result of a train accident or train incident.

Year 2004 figures indicate there were 899 total fatalities, as reported in writing, by all railroads. Of these, the present criteria within Section 225.9 required immediate telephonic reports for 416 of these fatalities (i.e., those occurring to rail employees, rail passengers, contractors to a railroad, and fatalities at highway-rail grade crossings). The remaining 483 fatalities in 2004 involved trespassers at locations other than at grade crossings, and thus were not subject to telephonic (immediate) notification by railroads under Section 225.9. Additionally, because confirmed suicides are not reported to FRA under its monthly accident reporting requirements at Section 225.11, we are not able to document and provide an annual number of these fatalities that would occur should a change be made to Section 225.9 to require railroads to report suicides. Our conservative estimate would be approximately 100 fatalities due to suicides each year. Thus, if Section 225.9 were changed to require all fatalities be telephonically (immediately) reported, it is estimated this would result in almost 600 additional calls to the National Response Center each year.

At present, Section 225.9 requires telephonic (immediate) notification of "serious

injuries" only in the event of "[a] train accident that results in serious injury to two or more crew members." Thus, there are only a few reports each year that would meet this criteria. However under Section 225.11, railroads presently render monthly written reports of all injuries that meet FRA monthly reporting criteria, which would include "serious injuries." A review of calendar year 2004 data reveals there were monthly written reports made for a total of 125 amputations (injuries a lay person would consider "serious") and for a total of 953 fractures (injuries a lay person may also consider "serious"). Thus, if Section 225.9 were changed to require all "serious injuries" to be telephonically (immediately) reported, it is estimated this would result in at least approximately 1,100 additional calls to the National Response Center each year (depending upon how the term "serious injury" would be defined).

Overall, if the criteria for Section 225.9 were changed to require railroads to provide telephonic (immediate) notification to the National Response Center for all fatalities and all "serious injuries," we estimate that change would result in approximately 1,700 additional calls from railroads to the National Response Center annually. One of the problems with making this change is that FRA does not have the resources to investigate most of the fatalities that occur at highway-rail grade crossings that are already required to be reported under Section 225.9. Changing Section 225.9 to require additional telephonic notification by railroads for all other fatalities, and all serious injuries, would likely not result in additional FRA investigations to be made on these additional telephonic reports unless FRA receives commensurate increases in its staffing and resources.

It would be FRA's recommendation that Section 225.9 not be changed to require the comprehensive telephonic reporting of all fatalities and all serious injuries to all types of persons. This would avoid imposing a burden on the taxpayer (to the extent that the cost of National Response Center operations would increase) and industry, and the need for this information would be difficult to justify. If Section 225.9 were to be expanded, FRA would favor a more selective approach, such as notification of "amputations involving a limb" (e.g., arm or leg, or both) of railroad on-duty employees.

7. **Question:** Should there be a Federal sight distance requirement for highway-rail grade crossings?

**Answer:** Many factors contribute to the ability of a driver to have adequate sight distance on approach to a grade crossing. The speed limit and geometry of the roadway, curvature of the track, obstructions (including buildings) not on railroad property, as well as vegetation, all add to the degree to which sight distances can be optimized or impeded. These varying conditions make it problematic to regulate sight distance. However, FRA, the Federal Highway Administration (FHWA), and crossing experts have developed tools to assist in designing and maintaining grade crossings to maximize sight distances for drivers. FHWA's Railroad-Highway Grade Crossing Handbook addresses recommended sight distances utilizing a "sight triangle" that takes into account the distance of the vehicle driver from the track, the distance of the train from the crossing, the speeds of the train and vehicle, and the unobstructed sight line of the driver to the front of the train. In 2002, the Department published Guidance on Traffic Control Devices at Highway-Rail Grade Crossings to assist highway engineers in the design of grade crossings. The

document addresses driver needs for safe passage through a grade crossing and discusses recommended sight distance requirements. The document also discusses safety enhancements where conditions (such as buildings, vegetation on private property, or other impediments) cannot be corrected to achieve optimal sight distances.

FRA's track regulations (49 CFR Part 213) require railroads to control vegetation on railroad property that is on or immediately adjacent to the track bed so as not to obstruct visibility of railroad signs and signals, including those at grade crossings. However, specific sight distances are not prescribed. Some States (fewer than half) do have laws pertaining to vegetation control along the railroad right-of-way or at grade crossings. Most of these require the railroads to clear obstructions from the right-of-way and surrounding railroad property to some specified distance. A few States (Connecticut and Idaho, for example) also require any landowner to remove obstacles from his or her land at the landowner's expense.

FRA notes that sight distance requirements are also significantly influenced by the type of signage and warning system at the crossing. At crossings equipped with flashing lights and gates, motorist compliance with the active warning will moot the question. At crossings equipped with flashing lights only or with stop signs only, appropriate sight distance will be determined by the position of the motorist stopped at the stop line approaching the crossing. At a passive crossing where adequate sight distance cannot be maintained in proportion to roadway speed for any reason (e.g., buildings, mature trees, topography, rail line curvature), the local traffic engineer should provide appropriate interventions (e.g., traffic calming devices, stop signs, active warning systems). Given the different conditions that must be considered when determining adequate sight distance, the varying roles and responsibilities of public roadway, railroad, and private property owners, and the variety of methods available to address sight restrictions, this is clearly a shared responsibility. The first objective should be to facilitate the use of appropriate measures to address sight distance, or compensate for the lack of adequate sight distance, based on the conditions that actually exist at the location. FRA is continuing to evaluate what further role we can play in this process.

**8. Question:** Should there be a Federal requirement to enforce right-of-way maintenance obligations?

**Answer:** As noted above, FRA's track safety standards do address certain right-of-way maintenance obligations, and these are enforced by FRA. Section 213.337 addresses railroads' obligations to control vegetation on railroad property that is on or immediately adjacent to roadbed. Among other things, such vegetation must be controlled so that it does not obstruct visibility of railroad signs and signals along the right-of-way, and at highway-rail crossings. Section 213.333 also addresses railroads' right-of-way maintenance obligations, providing that each drainage or other water carrying facility adjacent to the roadbed be maintained and kept free of obstruction, to accommodate expected water flow for the area concerned.

FRA's regulations, however, do not generally address the issue of removal of litter on a railroad's right-of-way, and this may have been basis for the concern the Congressman noted in Ohio. Of course, the mere presence of litter should not affect the safety of highway-rail grade crossings, as the presence of uncontrolled vegetation may. Nevertheless, the railroads'

obligations to control vegetation on their property and keep drainage facilities free of obstruction as provided in FRA's regulations have the effect of controlling litter to an extent as well.

**Questions from Congressman Bachus:**

1. **Question:** Please provide me with your agency's legal opinion explaining how FRA complied with the requirement of 49 U.S.C. 20153(j) that regulations issued under this section shall not take effect before the 365<sup>th</sup> day following the date of publication of the final rule when it issued the final rule on "Use of Locomotive Horns at Highway-Rail Grade Crossings."

**Answer:** FRA complied with 49 U.S.C. 20153(j) because more than the required 365 days elapsed between issuance of the interim final rule on December 18, 2003, and the effective date of the rule on June 24, 2005.

On November 2, 1994, Congress passed Public Law 103-440 ("Act") which added section 20153 to title 49 of the United States Code. That section required the Secretary of Transportation (delegated to the Federal Railroad Administrator) to prescribe regulations requiring that a locomotive horn be sounded while each train is approaching and entering upon each public highway-rail grade crossing. The section also provided that the Secretary, under certain conditions, may except from the requirement to sound the horn categories of rail operations or categories of highway-rail grade crossings.

Subsections (i) and (j) were added to section 20153 by Public Law 104-264 on October 9, 1996 as follows:

(i) Regulations. – In issuing regulations under this section, the Secretary –

(1) shall take into account the interest of communities that –

(A) have in effect restrictions on the sounding of a locomotive horn at highway-rail grade crossings; or

(B) have not be subject to the routine (as defined by the Secretary) sounding of a locomotive horn at highway-rail grade crossings;

(2) shall work in partnership with affected communities to provide technical assistance and shall provide a reasonable amount of time for local communities to install SSMS, taking into account local safety initiatives (such as public awareness initiatives and highway-rail grade crossing traffic law enforcement programs) subject to such terms and conditions as the Secretary deems necessary, to protect public safety; and

(3) may waive (in whole or in part) any requirement of this section (other than a requirement of this subsection or subsection (j)) that is not likely to contribute significantly to public safety.

(j) Effective Date of Regulations. – Any regulations under this section shall not take effect before the 365<sup>th</sup> day following the date of publication of the final rule.

In interpreting the statute, FRA reads these two subsections together (as it must) so that they make sense together. While it is not entirely clear what purpose Congress meant to serve with the one-year requirement, FRA infers from the emphasis Congress put on accommodating the interest of affected communities in subsection (i) that Congress meant the one-year requirement of subsection (j) to give affected communities one year of lead time, instead of the typical 30 days, to determine how to comply with the rule and to determine how to preserve bans on the sounding of train horns that predated the statute.

FRA's actions summarized below served those purposes very well. Affected communities got more than one year to determine how to comply with the rule. Railroads were also incidental beneficiaries of this extended period. Congress was afforded more than one year to legislate if constituent complaints had led it to do so. It should be noted that, in addition to delaying the rule's effective date for more than a year, FRA also used compliance dates to provide communities with time to adjust (e.g., 5-8 years for pre-rule quiet zones) and made many other accommodations to assist affected communities in adapting to the law—thereby exceeding the deference contemplated by the statute. The changes made by FRA to the interim final rule in response to the comments on it afforded relief to the commenters and others similarly situated. The modest changes made did not alter the rule materially for purposes of section 20153(j).

FRA issued a Notice of Proposed Rulemaking on January 13, 2000, and subsequently held twelve public hearings throughout the country on the proposed rule and received approximately 3000 comments. FRA thereafter issued an interim final rule on December 18, 2003, with an effective date of December 18, 2004—365 days later. After reviewing more than 1400 comments received on the interim final rule and deciding that some changes based on those comments were merited, FRA postponed the effective date of the interim final rule so that the final rule issued on April 27, 2005, with an effective date of June 24, 2005, would complete action on the interim final rule. Thus, more than 550 days elapsed between issuance of the interim final rule and its effective date, which satisfies the statute.

In the preamble to the interim final rule, FRA recited well-settled administrative law that an “interim final rule has the same force and effect as a final rule.” 68 Fed. Reg. 70,586, 70,592 (Dec. 18, 2003). FRA then explained that, “[b]ecause this interim final rule has all the legal attributes of a final rule” and that Congress had provided for the one-year delay requirement of subsection (j), the effective date of the interim final rule would be delayed for one year. *Id.* FRA provided the same explanation concerning the effective date when issuing the final rule. 70 Fed. Reg. 21,844, 21846 (Apr. 27, 2005).

The United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) considers an interim final rule to have the same force and effect as a final rule. An effective statutory implementation date is established by an interim final rule, which has the same

authority as a final rule. See Career College Ass'n v. Riley, 74 F.3d 1265, 1268 (D.C. Cir. 1996). “The key word in the title ‘Interim Final Rule,’ unless the title is to be read as an oxymoron, is not interim but final. ‘Interim’ refers only to the Rule’s intended duration – not its tentative nature.” Id. An interim final rule has the legal significance of a final rule, otherwise its products would simply be “a senseless repetition of the notice of proposed rulemaking.” Id. at 1269.

Further, the D.C. Circuit has held that an interim final rule is subject to judicial review as a final rule. While the court may consider the fact that an agency might limit its resource commitment to an interim final rule that is expected to be in place for a short time, agencies will still be subject to review of an interim final rule. See Competitive Telecomms. Ass'n v. FCC, 87 F.3d 522, 531 (D.C. Cir. 1996) (“even an interim rule expected to be in place for only a brief time is subject to review . . .”) (citing Union of Concerned Scientists v. Nuclear Regulatory Comm'n, 711 F.2d 370, 379 (D.C. Cir. 1983)). Thus, interim final and final rules have the same force and effect of law.

In this proceeding, FRA chose to issue an interim final rule because FRA had made significant changes to the proposed rule in response to comments received on it. In such a situation, issuing an interim final rule is considered to be good regulatory practice because it affords the regulated community another opportunity to review and comment on a rule. If the agency makes any further changes to the rule in response to comments received on the interim final rule, then the correct action is to issue a final rule embodying those changes and concluding the proceeding. (See Administrative Conference of the United States Recommendation 95-4, 60 Fed. Reg. 43,108, 43,110 (Aug. 18, 1995).) That is what FRA did here. Of course, if an interim final rule takes effect before issuance of a final rule amending it, the interim final rule has the force and effect of law without further agency action, demonstrating its finality. Moreover, in some situations the agency will decide that the interim final rule needs no change. In that case, the interim final rule simply takes effect, and the agency might simply issue a notice explaining that no change will be made. This possibility also underscores the final nature of an interim final rule.

**2. Question:** Why did FRA use a distance of only 50 feet from a highway-rail grade crossing in setting the minimum volume for wayside horns? Fifty feet is too short a distance for a motorist to make a decision to stop.

**Answer:** FRA notes that, because a number of factors influence the ability of a motorist to detect an audible warning at a highway-rail grade crossing, there really is not any standard decision-making point for motorists approaching highway-rail crossings. Nor does FRA set such a point. Factors such as ambient noise levels in the motor vehicle, the acoustic insertion loss of the vehicle (which represents the sound that does not enter the vehicle’s interior because it is reflected or absorbed by the exterior of the vehicle), and the characteristics of individual grade crossings all may influence motorist detection of the audible warning.

What FRA’s train horn rule does is permit the use of a wayside horn to provide an audible

warning to highway users in lieu of the locomotive horn at highway-rail grade crossings that are equipped with flashing lights and gates. Wayside horns are directional horns that are typically installed immediately adjacent to the crossing equipment (masts and gates). In some instances, the wayside horns may be installed directly on the crossing equipment. The wayside horns are directed towards the approaching lanes of traffic and must begin sounding at least 15 seconds prior to the train's arrival at the crossing.

FRA's regulations require that the wayside horn provide an audible warning that has a minimum sound level of 92 dB(A) (A-weighted decibels) and a maximum sound level of 110 dB(A) when measured 100 feet from the centerline of the nearest track. This was a change from FRA's Interim Final Rule, which required a minimum sound level of 96 dB(A) (and a maximum sound level of 100 dB(A)) when measured 100 feet from the horn. The change was prompted by comments received from several parties. After reviewing the comments and FRA's previous analysis on the alerting power of a wayside horn, FRA determined that a wayside horn set at 92 dB(A) would provide comparable warning to that required of a locomotive horn.

The only mention of 50 feet relative to the wayside horn is found in the preamble of the final rule relative to a discussion of this changed sound level and point of measurement. A commenter on the interim final rule noted that at crossings that are severely skewed (e.g., the track crosses the roadway at a small angle rather than at a right angle), the wayside horn may have to be installed 50 feet or more from the centerline of the track. This could have resulted in a measurement location 150 feet or more from the centerline of the track and, consequently, could have led to the imposition of a much more stringent requirement on wayside horns (for clarity, 92 dB(A) measured 150 feet from the wayside horn) than that imposed on locomotive horns themselves (96 dB(A) measured 100 feet for the locomotive horn). As noted, FRA believes that the new sound level and measurement requirements for the wayside horn provide a comparable level of warning to that required for locomotive horns.

**3. Question:** Does the train horn rule shield a railroad from liability for not sounding the locomotive horn at highway-rail grade crossings in quiet zones?

**Answer:** The final rule establishes a Federal standard of care, which replaces the standard of care that was previously established by State law. Under this new standard of care, railroads are not obligated to sound the locomotive horn at grade crossings located within quiet zones because adequate safety improvements have been made within the quiet zone to compensate for the lack of the audible warning previously provided by the locomotive horn.

Should an accident occur at a grade crossing located within a quiet zone, which results in a lawsuit against the railroad for failure to sound the locomotive horn at the crossing, I would expect that the court will follow the precedent established in Shanklin and Easterwood and find that State law requirements to sound the locomotive horn at grade crossings have been preempted by the final rule. Therefore, by effectively subsuming the subject matter of locomotive horn sounding at grade crossings within quiet zones, the final rule should relieve individual train crew members and their employers from liability for failure to sound the locomotive horn at quiet zone crossings.

4. **Question:** If the engineer miscalculates when to blow the horn, because of the complexity of the train horn rule, is the railroad exposed to liability?

**Answer:** Whether a railroad is exposed to liability if the locomotive engineer miscalculates when to blow the horn depends on how long the engineer sounds the horn. Let me explain.

Under the final rule, an engineer must, as a general rule, begin sounding the locomotive horn at least 15 seconds, but no more than 20 seconds, in advance of a public grade crossing. The final rule contains an exception, however, for fast-moving trains that cannot meet the 15-second minimum without violating the final rule's prohibition on initiating locomotive horn sounding from a location more than a quarter of a mile from the crossing. Therefore, if an audible warning of less than 15 seconds were provided by a fast-moving train (one traveling at more than 60 mph) that began sounding the horn a quarter of a mile from a public grade crossing, the railroad would not have violated the train horn rule and, therefore, should not be exposed to liability.

FRA has, however, received a petition for reconsideration of the final rule from the Association of American Railroads ("AAR"), as well as letters from the United Transportation Union ("UTU"), and the Brotherhood of Locomotive Engineers and Trainmen ("BLET"), in which these organizations expressed concern that engineers may miscalculate the point at which the locomotive horn sounding must begin. To resolve this potential issue, these organizations have requested that the final rule be amended to include a "good faith" exception for the locomotive engineer who may find it difficult to estimate his or her impending arrival at a particular grade crossing.

Even though the petition for reconsideration is still under review, FRA issued a letter to the AAR, on June 23, 2005, in which FRA stated its intent to amend the final rule to address the AAR's concerns. FRA stated that it intends to allow engineers to sound the locomotive horn up to 25 seconds (on occasion) in advance of public highway-rail grade crossings, provided such action is taken in good faith. This proposed amendment should alleviate concerns based on any perceived inability to comply with the final rule's 20-second maximum horn sounding requirement, while affirming action taken by the locomotive engineer who errs on the side of safety in a particular instance.

STATEMENT OF  
THE HONORABLE CORRINE BROWN  
SUBCOMMITTEE ON RAILROADS  
HEARING ON  
“RAILROAD GRADE CROSSING SAFETY ISSUES”  
JULY 21, 2005 – 10:00 AM

I want to begin by thanking Chairman LaTourette for holding this hearing on Grade Crossing Safety. I also want to welcome all our distinguished guests, and thank them for joining us today.

Last month, the Department of Transportation’s Inspector General reported that the Federal Railroad Administration had made progress toward achieving its 10-Year goal of fewer than 2,500 grade crossing accidents and 300 fatalities. Grade crossing accidents are down

from almost 5,000 in 1993 to about 3,000 in 2003. Fatalities also decreased from 626 to 325.

Despite this progress, the number of deaths at crossings rose 11 percent in 2004 while a few high-profile accidents have raised serious questions about safety and security in the railroad industry.

The fact is that we need to do more on rail safety. We need to make sure our laws and regulations are effective, that they are being enforced, and that we are addressing the right problems. We need to look at whether the FRA has the necessary resources to do its job, or whether they need more inspectors or more

funding. Certainly, we need to pass an FRA reauthorization bill. We need to identify improvements that could further grade crossing safety and aid in reducing accidents and fatalities. And we need to look at FRA's oversight capabilities.

Last summer, The New York Times raised serious questions about accident reporting and investigations at grade crossings.

Responding to these concerns, I sent a letter to the Department of Transportation's Inspector General asking him to review FRA's oversight and inspection program. I understand that Mr. Mead is prepared to talk about that audit at this

hearing today, and I look forward to his statement.

Finally, I want to mention the issue of whistle bans. One of the first bills I introduced in the State legislature would have mandated whistles at all railroad crossings, because I believe it is the best way to warn people, and because I believe that everyone knows what that whistle means. I sympathize with those who struggle with this noise, but the railroads built this country, and those tracks have been there fore over a hundred years.

Finally, I want to say that we can no longer keep our heads in the sand as it related to rail

security. This Congress and this Administration owe it to the American public to protect them.

Even after the attacks in Spain last year and the attacks in London last week we haven't moved to protect our railroads and transit systems. And sadly, we see it again today in London. We've passed several so called "emergency funding" bills for Iraq, but can't even get rail security legislation through the committee. This is an absolute emergency we are facing, and we haven't done anything. I hope that today's horrible attacks in London will move Washington to act.

These issues are very important to the American public, and I look forward to hearing from today's witnesses, and yield back the balance of my time.

*Corrected*

**Hearing on Railroad Grade Crossing Safety Issues  
Subcommittee on Railroads – U.S. House of Representatives  
Thursday, July 21, 2005**

**Statement of Gerri L. Hall, President, Operation Lifesaver, Inc.  
1420 King Street, Suite 401 - Alexandria, VA 22314  
Telephone: 703-739-0308; Website: [www.oli.org](http://www.oli.org)**

Chairman LaTourette, members of the Subcommittee, thank you for inviting me to testify during this hearing on Railroad Grade Crossing Safety Issues.

I am President of Operation Lifesaver, an international, non-profit public education program dedicated to ending tragic deaths and injuries on highway-rail grade crossings and railroad property. Operation Lifesaver is at the heart of rail safety: Over 96 percent of all rail-related fatalities involve vehicle or pedestrian/train collisions.

On behalf of Operation Lifesaver, our Board of Directors, 50 state coordinators, 200 trainers and more than 3,000 volunteer safety speakers across the nation, thank you for the ongoing support the Railroad Subcommittee and its Members have given Operation Lifesaver for nearly 20 years. You are some of our best safety partners!

**Operation Lifesaver History**

Operation Lifesaver began in 1972, as a one-time only, six-week public awareness campaign by Idaho Governor Cecil Andrus' office, the Union Pacific railroad and the Idaho Peace Officers. State officials were alarmed by the high incidence of vehicle/train collisions in their state and decided to do something about it.

The very first Operation Lifesaver safety speakers, which we now call *APresenters,* spoke to the same groups that we focus on today: professional drivers, school children, new drivers, and community groups. In its first year, Idaho Operation Lifesaver saw a 43 percent reduction in fatalities. Inspired by Idaho's success, Nebraska, Georgia and Kansas tried the new Operation Lifesaver approach. Those states experienced the same kind of result -- collision rates in those states dropped between 26 percent and 75 percent in the first year after their Operation Lifesaver programs began.

By 1986, grassroots Operation Lifesaver programs had sprung up in 49 states, often sponsored by state safety councils or state departments of transportation. That year, Operation Lifesaver was incorporated as a national, non-profit 501c3 educational organization.

Operation Lifesaver's Board of Directors includes a former school bus driver trainer from North Carolina, as well as representatives of the American Bus Association, the American Public Transportation Association, the Railway Supply Institute, and both the AAR and the Association of Short Line and Regional Railroads. The Chairman of the OLI Board currently and for the past six years is the former Director of Intermodal Programs for the American Association of State Highway and Transportation Officials, the national organization representing state Directors of Transportation.

In 1987, the Operation Lifesaver Board established a Program Development Council (PDC) to be responsible for the development of accurate, effective education and training programs and materials to be used by all of Operation Lifesaver's partners and participants. The PDC today is made up of 37 voting members representing OLI state coordinators, federal agencies and national associations with a role in rail safety (eg., law enforcement, emergency responders, firefighters, pupil transportation, professional truckers, highway-rail/traffic safety engineering, state departments of transportation, rail labor, light rail transit, suicide prevention, etc.), and representatives of the nation's Class 1 railroads. Operation Lifesaver Canada and Mexico Operation Lifesaver also are represented on the PDC.

In 2001, the Board voted to make Operation Lifesaver, Inc., a "membership organization" comprised of the Operation Lifesaver state programs, most of which now are independently incorporated as 501c3 educational organizations with their own Boards of Directors. The District of Columbia started an Operation Lifesaver program in 2002. We trained Presenters in Hawaii in 2004, but we do not have a formal state program there. At this time, all state programs are members in good standing of Operation Lifesaver, Inc.

Operation Lifesaver is highly regarded internationally and has been a model for railroad safety organizations worldwide. Operation Lifesaver Canada started in 1981, and is active across the Canadian Provinces. Argentina Operation Lifesaver began in 1996. In 2001, Mexico Operation Lifesaver was established, and Panama began a regional Operation Lifesaver initiative. In 2003, England adopted a rail safety program based on Operation Lifesaver focusing mainly on pedestrian safety issues and rail trespass prevention. In 2004, Estonia Operation Lifesaver was established. They are translating their materials into Finnish and Russian so they can promote Operation Lifesaver programs in those countries. Australia is carrying out an extensive rail safety public awareness campaign, based on the Operation Lifesaver model.

In the United States, Operation Lifesaver receives support from a wide variety of partners including, but not limited to, the U.S. Department of Transportation (FRA, FHWA, FTA, NHTSA, FMCSA), the National Transportation Safety Board, the Department of Homeland Security; the American Trucking Associations, the National Public Transportation Association, the American Automobile Association, the National Safety Council, the International Association of Chiefs of Police, the National Sheriffs Association and the International Association of Directors of Law Enforcement Standards and Training, the International Associations of Fire Fighters and of Fire Chiefs, the Governors Highway Safety Association, the American Association of State Highway Transportation Officials, the National Association of State Directors of Pupil Transportation Services, the National Association of Pupil Transportation and the National School Transportation Association, state and local governments and associations across the nation, and North America's railroads, labor groups and suppliers.

#### **Operation Lifesaver Funding**

Around 90 percent of Operation Lifesaver's budget is provided by grants from the Federal Railroad Administration, the Federal Highway Administration and the Federal Transit Administration. The remaining 10 percent of our national budget is contributed by the railroad industry, including the Association of American Railroads, individual Class 1, regional and short line railroads, railroad supply manufacturers, private organizations and individuals.

Operation Lifesaver's national support center was established in Alexandria, Virginia, in 1989.

The purpose of the national Operation Lifesaver office, which I head, is to carry out three objectives, as follows: 1) to assist and empower the state Operation Lifesaver programs; 2) to develop effective educational programs and materials that can be used by all of Operation Lifesaver's partners and participants in North America and throughout the world; and 3) to create and coordinate the delivery of public awareness campaigns.

**1. State Operation Lifesaver Program Support**

*State Coordinator Support:* Operation Lifesaver state programs are lead by coordinators who manage safety education activities and respond to 100s of Presentation requests from schools, civic groups, trucking companies, police and fire departments, and companies such as FedEx, UPS and the U.S. Postal Service who have drivers on the road crossing railroad tracks. Because Operation Lifesaver wants its state programs to be as effective as possible, a State Coordinator Orientation class is held every December at Operation Lifesaver's national office. Annual workshops give state coordinators the opportunity to develop their management skills and to share best practices.

*State Program Grants:* Nearly one-third of the funding provided each year by the FRA is distributed to state Operation Lifesaver programs to assist with community-based projects and meet needs identified by state offices.

**2. Education and Training Programs and Materials**

*Presenter Training:* To ensure that our safety messages are accurate and delivered effectively, anyone who wants to become a volunteer safety speaker for Operation Lifesaver must successfully complete a one-day Presenter Training, which includes public speaking and rail safety education, before they are eligible to be certified as an Operation Lifesaver "Presenter" and enrolled in the national database. There are other continuing education requirements for presenters: in order to keep their presentation skills and knowledge honed, they must make at least four presentations each year.

Presenters come from all age groups and walks of life. Some of them are Operation Lifesaver high school speech contest winners who became Presenters and are giving safety talks to other teens; some are retirees; some are teachers who in addition to making presentations use our educational curricula in their classrooms. About one-third of our Presenters are law enforcement officers or emergency responders, such as firefighters, who have seen the devastating outcome of a rail-related incident or had to inform the family member that their loved one has perished in a grade crossing tragedy.

Last year, Operation Lifesaver=s more than 3,000 volunteer Presenters gave 32,000 presentations to nearly 1,400,000 individuals in our target audiences. Half of those reached were student drivers and other school-aged youngsters. About 4,200 presentations were given to nearly 120,000 professional truck and bus drivers and school bus drivers.

*Educational Materials for the Public:* Because we cannot reach all drivers and pedestrians through classroom style presentations, we continually work with key partners in government and the private sector to create and distribute 1,000s of safety videos and educational materials for specific audiences. These include "Your License or Your Life" for professional truck drivers; "Your Safety First" for emergency responders; and "Drive Smart; Arrive Safe," a soon to be released new video for school transportation providers. Later this year, we will release two other

new videos, one for new drivers and one, developed in cooperation with Canada Operation Lifesaver, for motor coach drivers.

Operation Lifesaver also has created a very popular educational product for teachers, available on cd-rom or on-line at our website ([www.oli.org](http://www.oli.org)). "Operation Lifesaver in the Classroom," which provides standards of learning approved lesson plans on math, science and language skills, which incorporate rail safety information. Since schools often teach safety as part of health and physical education classes, Operation Lifesaver is creating new lesson plans for use in physical education classes, featuring "kinetic" learning.

*Light Rail Transit Safety Education:* In 2001, Operation Lifesaver and the American Public Transportation Association entered into a Memorandum of Understanding to assist each other in accomplishing their common safety goals. That year, APTA invited Operation Lifesaver to work with transit providers to develop recommended practices related to public safety education for light rail transit. In 2002, APTA adopted recommended a "Recommended Practice for Rail Transit System Grade Crossing Public Education and Rail Trespass Prevention" which called for transit agencies to use the Operation Lifesaver program as a model for developing their own public safety education programs. Later that year, the Federal Transit Administration provided a grant of \$200,000 for Operation Lifesaver to develop and test new, light rail specific educational materials. Operation Lifesaver hired a Director for Light Rail Safety Education to carry out the contract, and invited transit agencies to create a program to suit their unique needs.

Twenty-three transit agencies responded to OLI's invitation to develop key safety messages and select a safety mascot (Earl P. Nutt, a North American Red Squirrel) who would be the star of a new light rail safety program for young people. The new light rail program features an eight-minute cartoon, posters and activity book in English and Spanish. Independent testing of the materials revealed a consistent conclusion of importance to all Operation Lifesaver public education activities: at all ages, the more trained and knowledgeable the presenter, the more successful, well-received and retained the messages. The materials are available to transit agencies free of charge, and may be customized to address their specific circumstances. Eight transit agencies have signed licensing agreements to use the "Earl" materials, and another 16 have requested more information.

*Safety for Law Enforcement and Emergency Responders:* Because of the special circumstances affecting the safety of law enforcement officers and emergency response personnel when they must work on or near railroad property, Operation Lifesaver has collaborated with experts in the field to develop training programs for these groups. Five years ago, Operation Lifesaver collaborated with the nation's railroad police, the International Association of Chiefs of Police, the National Sheriffs Association and the International Association of Directors of Law Enforcement Standards and Training to develop model Grade Crossing Collision Investigation courses for local police departments and law enforcement academies nationwide. Similarly, a new Rail Safety for Emergency Responders course has been developed in cooperation with the International Association of Fire Fighters and International Association of Fire Chiefs.

### **3. Public Awareness Campaigns**

Historically, about one-third of the funds Operation Lifesaver receives from FRA are used for public awareness campaigns.

The "Highways or Dieways: The Choice is Yours" rail safety PSA campaign (print, TV, radio) was launched nationally in 1996, and ran through 1999. Tracking reports of the television PSAs showed that the TV PSAs generated roughly \$5.5 million in equivalent advertising dollar value. In addition, the PSAs were aired in all 50 states, reached more than 100 million potential broadcast viewers and an additional 22.8 million cable subscriber homes. The campaign cost approximately \$1.5 million.

OLI launched its "Take Safety to Heart" Public Service Advertising (PSA) campaign on Valentine's Day, 2001 with three new TV PSAs and corresponding radio and print spots. A second phase of the campaign, with three new TV spots, was launched in 2003. The campaign achieved TV and radio airtime and magazine placements equivalent to \$10.5 million. The campaign cost about \$1 million.

With the time available for TV public service announcements shrinking, OLI has started to explore other avenues for distributing PSAs. Movie theater ads were tested in a few markets to determine whether they could be a new direction for OLI PSA efforts. Print PSAs promoting pedestrian safety for rail commuters, which were sent to newspapers in metropolitan areas and medium sized cities (potential readership of 6.5 million) generated an equivalent donated publication value of \$25,000. Print PSAs stressing school bus safety which were distributed to small and medium sized newspapers nationwide (potential readership of 17 million) generated an equivalent publication value of nearly \$40,000. In addition, new radio PSAs were developed and placed in key Midwest states, with a return on investment of nearly 2 to 1.

#### **Operation Lifesaver's Impact**

The mission of Operation Lifesaver and its partners is to end tragic collisions, deaths and injuries at highway-rail grade crossings and on railroad rights-of-way. Operation Lifesaver has always recognized that it is only one player in the larger highway-rail grade crossing safety team. From the beginning, Operation Lifesaver has promoted three Es – Education, Engineering and Enforcement:

**Education** – Operation Lifesaver's sole purpose is to help the public make safe decisions around tracks and trains.

**Engineering** – Operation Lifesaver encourages the continued research into and application of engineering solutions to improve the safety of railroad crossings.

**Enforcement** – Operation Lifesaver promotes the active enforcement of traffic laws relating to crossing signs and signals and private property laws related to trespassing on the tracks.

In 1972, when Operation Lifesaver began, there were more than 12,000 collisions between trains and vehicles nationwide and about 1,200 fatalities. In 2004, preliminary FRA statistics indicate that there were 3,038 collisions and 386 fatalities. We wish there had been zero fatalities. However, it is gratifying to see that the efforts of all the partners in highway-rail grade crossing safety have accomplished a more than 70 percent safety improvement during the past 33 years. During the past decade alone, in spite of 20 percent increases in both highway and freight rail traffic, there has been a nearly 40 percent reduction in highway-rail grade crossing collisions.

What has Operation Lifesaver contributed to the reduction of highway-rail grade crossing collisions? In July 2003, Dr. Ian Savage, and Economist from Northwestern University published a report entitled, "Why has Safety Improved at Rail-Highway Grade Crossings". Dr. Savage's analysis concluded that about two-fifths of the decrease in collisions and fatalities was due to general highway improvements, such as reduced drunk driving and improved emergency medical responses. The installation of gates and flashing lights was estimated to account for about one-fifth of the reduction. The development of Operation Lifesaver's public education campaign and the installation of ditch lights on locomotives were estimated to have led to about one-seventh of the reduction. About one-tenth of the improvement in safety was attributed to closure of crossings.

On March 17, 2005, Dr. Savage calculated, in a paper entitled "Operation Lifesaver's Effect on Crossing Incidents and Fatalities," that Operation Lifesaver's existence averted approximately 22,045 incidents and 3,215 deaths between 1975 and 2001. His analysis of the reports of state Operation Lifesaver programs indicated that that doubling the amount of educational activity in a state reduced the number of collisions by 11 percent. Finally, he notes that the annual benefit-cost ratio for Operation Lifesaver would be 101:1, based on a calculation of deaths and injuries averted compared to funding and in-kind contributions to the program.

#### **Operation Lifesaver's Continuing Challenges**

**Pedestrian Safety / Rail Trespass Prevention.** In 1997 highway-rail grade crossing fatalities were exceeded for the first time by railroad trespass fatalities - where a pedestrian is killed or injured while unlawfully walking, hiking or playing on tracks or railroad equipment. This tragic trend continues to frustrate us.

From its inception, Operation Lifesaver has addressed pedestrian safety in its brochures, videos and presentations. In 1997, in cooperation with Operation Lifesaver Canada, we produced a comprehensive Guide to Community Trespass Prevention for use by our State Coordinators and their partners. This document was updated in 2003, and we have given our Presenters stronger talking points and visual aids aimed at trespass prevention. However, we are anxious to target our messages more effectively as a result of the FRA research being conducted on rail trespasser demographics.

**Rail Security Issues.** Pedestrian activities around tracks also have implications for rail security. In 2004, Operation Lifesaver invited a representative of the Transportation Security Administration (TSA) to join its Program Development Council. Operation Lifesaver subsequently worked with TSA, AAR and FRA, to develop a "Rail Fans Tips and Security Advisory" encouraging rail fans and others to give safety and security top priority around tracks and trains, and to report suspicious activities to railroad or local law enforcement officers immediately.

**Bad Ads/Entertainment Images.** Operation Lifesaver is convinced that entertainment and advertising images showing unsafe and illegal motorist and pedestrian behavior on the rails is unwittingly contributing to our national rail safety problems. Operation Lifesaver and its participants send e-mails and letters weekly requesting that dangerous images on national television networks and in national publications be discontinued. As recently as June 29, Nissan motors discontinued a television ad campaign featuring its new Altima racing to beat a lowering highway-rail grade crossing gate which, at the last minute, pivots to stop the train. This month,

Operation Lifesaver has lodged complaints with Country Music Television and MTV about current CMT videos featuring Tim McGraw and Trisha Yearwood strolling down railroad tracks. Operation Lifesaver sometimes has received ridicule from entertainment industry representatives, rather than positive responses. We need to find ways to convince advertisers and the entertainment industry not to use dangerous images so they do not continue to undermine the safety efforts of Operation Lifesaver and its partners.

**Suicide Prevention.** For the past several years, Operation Lifesaver's British and Canadian colleagues have noted that suicides on rail property were on the rise. Unfortunately, federal statistics on this trend are not collected by the FRA or any health organization in the United States. However, we are told by state officials that for every ten rail trespassing related fatalities reported to the FRA, there are at least another three suicides by rail, which are not included in federal safety statistics.

Traditionally, Operation Lifesaver has limited its involvement to discouraging the press from sensationalizing "suicide by rail" in the news. Indeed, European research published during the past five years indicates such a strong and disturbing relationship between media reporting of suicides and copycat behavior that the World Health Organizations and the U.S. Centers for Disease Control and Prevention issued a paper entitled, "Reporting on Suicide: Recommendations for Media."

It was because of this report that Operation Lifesaver found one CMT music video particularly objectionable in 2004. The music video for "Long Black Train" featured images of despondent people standing in the middle of the rails ultimately being run through by a "phantom train." We feared that the video might be seen by vulnerable people as an unintentional invitation to suicide by rail. CMT ridiculed our concerns as petty. A suicide prevention expert has joined Operation Lifesaver's Program Development Council to help us address this problem, which has such far-reaching implications for families, communities and train crews. Clearly, the horrible Glendale, California, incident earlier this year illustrates the urgency of addressing the complex issue of "suicide by rail."

#### **Summary**

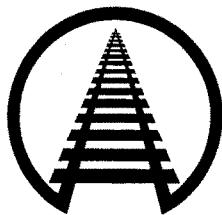
In closing, I would like to thank you again for inviting me to update the Railroad Subcommittee on the activities of Operation Lifesaver. With your support, Operation Lifesaver and state coordinators, presenters and partners have made great strides in improving highway-rail grade crossing safety over the past 33 years. Our work is not done, however. Working together with our national partners and international colleagues, we are committed to making improvements in grade crossing safety and also finding ways to more effectively address light rail and transit safety, pedestrian safety and trespass prevention, suicide prevention, and security around our nation's railroads. Lives in our communities depend on it.

**STATEMENT OF**

**EDWARD R. HAMBERGER**

**PRESIDENT & CHIEF EXECUTIVE OFFICER**

**ASSOCIATION OF AMERICAN RAILROADS**



**BEFORE THE**

**U.S. HOUSE OF REPRESENTATIVES**

**COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE**

**SUBCOMMITTEE ON RAILROADS**

**HEARING ON GRADE CROSSING SAFETY**

**JULY 21, 2005**

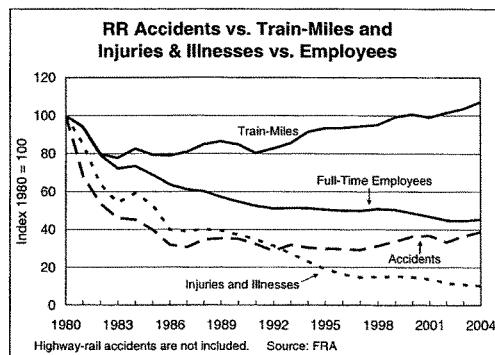
On behalf of the members of the Association of American Railroads (AAR), I am grateful for the opportunity to discuss the critical issue of grade crossing safety. AAR members account for the vast majority of freight railroad mileage, employees, and revenue in Canada, Mexico, and the United States.

Before I begin, I would like to express the gratitude of our nation's major freight railroads to the members of this subcommittee and the other members of the Committee on Transportation and Infrastructure for their hard work on TEA-21 reauthorization. Through your leadership on this issue you have shown that you understand the importance of transportation to the growth and vitality of our nation.

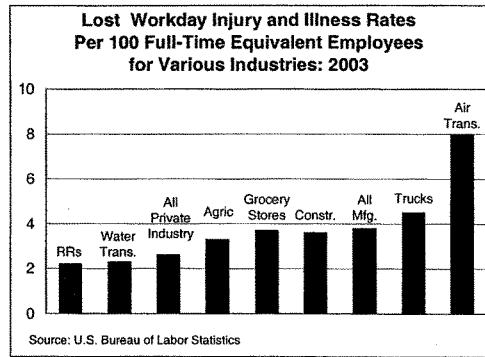
#### **Overview of Rail Safety**

The safety of their employees, their customers, and the communities they serve is of paramount importance to our nation's freight railroads. And as I noted in testimony to this committee this past April, railroads have achieved tremendous improvement in safety since the Staggers Rail Act of 1980 partially deregulated the industry.

According to Federal Railroad Administration (FRA) statistics, the rail industry has reduced its overall train accident rate 64 percent from 1980 to 2004 and 13 percent since 1990. Meanwhile, the rate of employee casualties has been reduced 77 percent since 1980 and 66 percent since 1990, and 2004 was the lowest rate on record.



According to the Bureau of Labor Statistics, railroads have lower employee injury rates than other modes of transportation and, indeed, most other major industry groups, including agriculture, construction, and manufacturing.<sup>1</sup> U.S. railroads also have employee injury rates well below those of most major European railroads.



The FRA itself recognizes the progress railroads have attained in overall safety. In a June 2004 publication, the FRA stated "By nearly every indicator, long-term safety trends on the Nation's railroads appear very positive. Overall, the safety performance record of the nation's railroads has been one of continuous improvement." These major improvements have come about precisely because railroads recognize their responsibilities regarding safety and devote enormous resources to its advancement.

Railroads, though, are not satisfied with the status quo, and will continue their efforts to address rail-related safety problems, including the subject of this hearing. Indeed, today the most critical rail-related safety problems are collisions at highway-rail grade crossings and incidents involving trespassers on railroad rights-of-way. In 2004, these two categories accounted for 94 percent of rail-related fatalities. Although these incidents usually arise from factors that are largely outside of railroad control, and even though highway-rail crossing warning devices are properly considered motor vehicle

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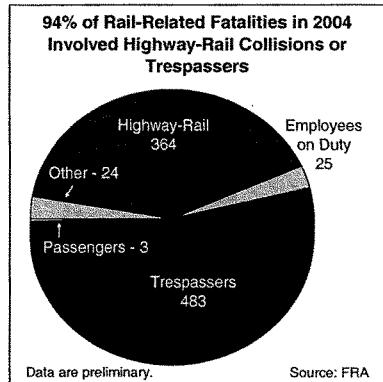
<sup>1</sup> There are minor technical differences regarding how injury and illness rates are determined in the rail industry versus other industries, but these differences do not affect the general finding noted here.

warning devices there for the benefit of motorists, not trains, railroads are committed to efforts aimed at sharply reducing the frequency of crossing and trespasser incidents.

#### Background on Highway-Rail Crossings

A highway-rail crossing usually refers to the general area where a railway and roadway intersect. A crossing is either "public" (i.e., the roadway is a public road) or "private" (i.e., the roadway is a private road), and either "at-grade" (the railroad and roadway join at the same elevation) or "grade-separated" (the railroad and roadway cross at different levels). As of December 31, 2003, there were 248,564 at-grade highway-rail crossings in the United States, including 150,744 (60.6 percent of the total) public vehicle crossings and 95,857 (38.6 percent) private vehicle crossings.<sup>2</sup> These crossings are distributed nationally more or less in proportion to the rail mileage within each state. Highway-rail crossings are protected either by train-activated warning "active devices" (including gates, flashing lights, bells, and/or highway signals) or by "passive devices" (including crossbucks, stop signs, and/or yield signs).

Essentially all problems at highway-rail crossings occur at non-separated crossings. Moreover, because motor vehicle traffic volume is generally much higher at public crossings than at private crossings, a large majority of problems associated with highway-



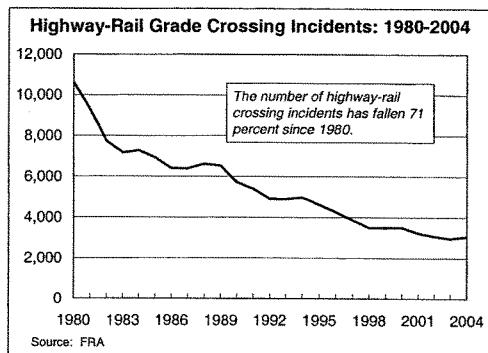
<sup>2</sup> There were also 1,963 pedestrian crossings.

rail crossings occur at public crossings. Thus, most attention to highway-rail crossing problems is directed to those associated with motor vehicles at public, at-grade crossings.

By far the biggest problems, of course, are associated with collisions at crossings, which often involve serious injury or loss of life. We should also remember the forgotten victims of grade crossing accidents: the locomotive engineers and conductors, who are usually helpless (and blameless) to prevent an accident, but have a "front and center" view of the tragedy involved and must live forever with its memory.

#### **Reducing Accidents at Grade Crossings**

Collisions, injuries, and fatalities at grade crossings have fallen steadily. In 1980, 10,611 grade crossing collisions resulted in 833 fatalities and 3,890 injuries. Based on preliminary FRA data, by contrast, in 2004 there were 3,050 collisions (down 71 percent) involving 368 fatalities (down 56 percent) and 1,071 injuries (down 72 percent). Preliminary FRA data for this year show that the number of highway-rail collisions is down 8.1 percent

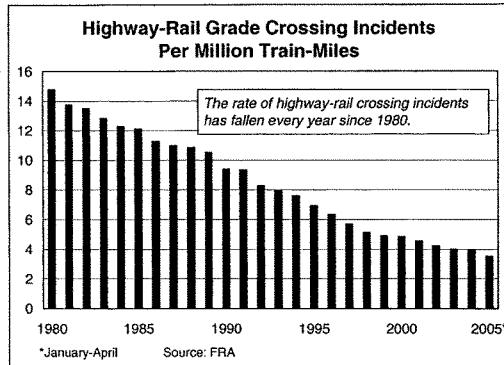


through the first four months of 2005, fatalities are down 5.6 percent, and injuries are down 9.5 percent.

The decline in the absolute number of highway-rail crossing accidents has occurred at the same time that rail traffic has been rising. In fact, today U.S. freight railroads are hauling more freight than ever before. Thus, the accident rate — the number of accidents

per number of train-miles — has fallen even more sharply than the number of accidents, and it has fallen every year since 1980. For 2005 through April, the rate is down 10 percent from the first four months of 2004.

The accident rate has fallen



even more sharply if one also considers the huge increase in the number of motor vehicle-miles on our roadways in recent years.

Nevertheless, the number of grade crossing accidents is still too high. That's why railroads are putting forth significant effort, and expending significant resources, on a variety of approaches designed to reduce the number of crossing accidents.

For example, CSX has strengthened its grade crossing safety program with key initiatives including improving its reporting operations to ensure independent auditing and more advanced analysis of grade crossing accidents. CSX also has a \$30 million program to clear cut vegetation along railroad tracks to enhance the public's visibility at grade crossings with no active warning devices, while Union Pacific (UP) has entered into long-term, performance-based vegetation control contracts to improve sight distance. UP has also completed 850 crossing upgrade projects in the last two years — crossings that were not addressed with federal Section 130 funds — upgrading passive crossings to active and improving on existing active crossings.

Although local communities are often opposed to closing grade crossings — which, as discussed further below, is the most effective way to reduce grade crossing accidents — all AAR member railroads are working closely with states, communities, and private property owners to close unnecessary or duplicate crossings. Since 2000, for example, BNSF has closed more than 2,500 at-grade crossings and has a goal of closing 420 more in 2005. Kansas City Southern is partnering with the Missouri and Mississippi Departments of Transportation to improve safety by upgrading crossing signals or closing crossings.

Norfolk Southern is partnering with the FRA and the North Carolina Department of Transportation in a new grade crossing safety research project that uses locomotive-mounted digital video cameras to capture real-time data of actual highway-rail grade crossing collisions and trespass incidents. The FRA noted, “The project results will be used to develop more effective safety measures to better protect lives at grade crossings and prevent trespass incidents throughout the country.”

The unfortunate and frustrating reality, though, is that, notwithstanding rail efforts to reduce the number of crossing accidents, the vast majority of such accidents are caused by inappropriate motorist behavior. According to a June 2004 report by the U.S. Department of Transportation’s Office of Inspector General, “Risky driver behavior or poor judgment accounted for 31,035 or 94 percent of public grade crossing accidents” from 1994-2003. Consequently, grade crossing accident prevention efforts have centered on improved warnings and educating the public about the life-or-death consequences of their actions at grade crossings.

Motorist error is a major problem even at crossings equipped with active warning devices. It might surprise you to know that since 1980, approximately 50 percent of all

highway-rail crossing incidents involving motor vehicles, and some 48 percent of fatalities, occurred at crossings equipped with active warning devices. Motorists too often drive around lowered gates, ignore flashing lights and ringing bells, and proceed through red traffic lights, often with tragic results. An analysis of FRA crossing incident data suggests that over the past 20 years, approximately 5,500 lives would have been saved at public highway-rail crossings if motorists had done nothing more than obey traffic laws (i.e., stop and wait for the train to pass) when an *active* signal warned them that a train was present or approaching. In addition to disregard for warning devices, common motorist errors include misjudgments of speed and stopping capabilities, misunderstanding of warning signs and signals, and failure to avoid collisions due to distraction and inattention.

Most people probably do not realize that the destructive force of a fast-moving, fully-loaded freight train relative to an automobile is roughly equivalent to the destructive force of that same automobile relative to an empty soda can. In other words, what a car can do to a soda can, a train can do to a car. Drivers need to be made aware of this, which is why education is so important.

An organization that deserves special commendation for its efforts to educate the public about the dangers of grade crossings and trespassing on railroad rights-of-way is Operation Lifesaver. Operation Lifesaver — a non-profit organization whose mantra is “look, listen, and live” — started in Idaho in 1972 and now has chapters in the 48 contiguous states, Alaska, and the District of Columbia. Each year, Operation Lifesaver’s presenters — many of whom are current or retired rail industry employees — provide free safety presentations to more than two million Americans, including school children, driver’s education students, business leaders, truck drivers, and bus drivers. I urge you to

raise the level of federal support afforded this important educational organization.

Railroads also provide significant support to Operation Lifesaver.

Of course, education alone is not enough to reduce the number of tragic grade crossing accidents. Engineering and enforcement actions are also critical.

Because maximum safety can be realized if crossings are eliminated, the closing of crossings (and, where appropriate, grade separation of those that are not closed) is the ultimate engineering improvement. Over the past two decades the number of public at-grade highway-rail crossings has fallen sharply (by 30 percent from 1980-2003), indicating that substantial success in this area has been achieved. But much more can be done. When considered objectively, thousands of existing crossings serve no significant transportation mobility or access purpose. Many of these crossings remain open only because small but vocal local opposition transforms what should be an objective transportation safety decision into an emotional political confrontation.

Indeed, until transportation policy officials are properly authorized to make final decisions on crossing closures, politics and parochial driving convenience will continue to dominate crossing closure debates. The result will be continued accidents at crossings that should be closed. To instill more rationality into the system, railroads suggest that the Federal Highway Administration should formulate guidelines to help state transportation agencies identify and evaluate candidate crossings for closure and determine whether to permit the installation of new grade crossings.

Grade separation can cost \$10 million or more for a single crossing. As such, it is far too expensive for universal application and can usually be justified only at crossings with a very high volume of train and/or other traffic. Where objective analysis deems it

the best option, however, grade separation should be pursued, especially on major railway and roadway routes. The Interstate Highway System, now more than 46,000 miles long, by design has no at-grade highway-rail crossings. Their absence ensures that motor vehicle traffic moves at peak speed and efficiency across the network. Similarly, the 161,000 mile National Highway System (NHS), the backbone of this country's road network, would be much more effective if it too were void of grade crossings. Thus, the elimination or grade separation of the approximately 4,500 highway-rail grade crossings currently on the NHS should be a long-term goal. Likewise, federal guidelines should be adopted which would require the elimination (by separation or closure) of all grade crossings on any high-speed passenger rail lines that are built.

The characteristics of a particular crossing determine the type of warning devices that state transportation authorities decide is appropriate at that crossing. Factors that help predict the number and severity of accidents at a particular crossing include highway traffic volumes, train traffic, maximum train speed, number of main tracks, number of highway lanes, and whether the crossing is rural or urban. Crossings with a higher accident potential call for active warning devices. Over time, the number of public grade crossings protected by active devices has risen from 25 percent of the total (53,790 crossings) in 1980 to 42 percent of the total (63,335 crossings) in 2003. The increase in active warning devices at crossings is almost certainly a major reason for the reduction in the number of accidents over time. Depending on the characteristics of a particular crossing, state authorities might determine, of course, that up-to-date passive devices provide adequate protection.

In late June 2005, the FRA announced a final rule requiring improvements in the crash survivability of locomotive event recorders (also known as "black boxes"). Under the rule, which was formulated with the active participation of the rail industry and rail labor, event recorders will be hardened to prevent the loss of data from exposure to fire, impact shock, immersion in liquid, and other potential damage resulting from train accidents. Currently, locomotive event recorders capture information such as train speed, use of automatic air brakes, throttle position, and cab signal indications. Under the new rule, additional data — including horn activation, cruise control functions, and train control operating directives sent to the engineer's onboard display — will also have to be captured. The rule gives railroads four years to replace older-style event recorders that use magnetic tape to store data with new electronic memory modules. The rule requires railroads to improve inspection, testing, and maintenance procedures, and requires railroads to keep data stored on event recorders involved in accidents for one year, up from the current 30-day requirement.

The rail industry will cooperate fully with this new requirement and hopes it leads to improved safety at rail crossings and elsewhere in rail operations.

#### **The Section 130 Program**

Despite the fact that accidents continue to occur at crossings with active warning devices, it is clear that at crossings with higher accident potential, an active warning device can improve safety. However, the high cost of current active warning devices — approximately \$150,000, on average, per installation — has limited the number of crossings at which they have been installed. Research into improved low-cost grade crossing warning systems is continuing, but increased federal funding for highway-rail

crossing hazard abatement through an expansion of the existing Section 130 program would permit additional crossings to be protected much more quickly with available warning device technology.

The ability to use federal funds for improvements to highway-rail crossings has existed since 1917, according to the Federal Highway Administration (FHWA).<sup>3</sup> Federal funding specifically for crossings was first addressed in 1933 when Congress passed the National Industrial Recovery Act, which authorized \$300 million in state grants to pay for eliminating hazards at grade crossings. More recently, Section 203 of the Highway Safety Act of 1973 (which was later incorporated in Section 130 of the Surface Transportation and Uniform Relocation Assistance Act of 1987 — hence the program's name) provides federal Highway Trust Fund money to states and local governments to eliminate or reduce hazards at highway-rail crossings on public highways.

The Section 130 program was retained under TEA-21 as a set-aside under the Surface Transportation Program. Total annual Section 130 funding today is approximately \$155 million per year, divided by formula among the states. The vast majority of Section 130 funds have been spent on the installation of new active warning devices such as lights and gates, upgrading existing devices, and replacing or improving grade crossing surfaces.

Without funding dedicated to or earmarked for the Section 130 program, grade crossing needs would likely fare very poorly in competition with more traditional highway needs, such as highway capacity expansion and maintenance. In fact, the primary reason that a separate grade crossing safety improvement program was begun in 1973 was that highway safety, and especially crossing safety, received limited priority for available

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<sup>3</sup> *Railroad-Highway Grade Crossing Handbook*, Second Edition, FHWA-TS-86-215, September 1986.

highway dollars. The grade crossing improvements paid for with Section 130 funds have directly reduced the number of collisions, deaths, and injuries at highway-rail grade crossings. In fact, according to the FRA, the Section 130 program has helped prevent some 51,000 injuries and 10,500 fatalities since 1974.

Preserving the Section 130 grade crossing improvement program as a set aside and increasing program funding are essential to ensure further reductions in grade crossing accidents and casualties. The budgetary treatment of the grade crossing safety program should be similar to other highway safety programs with regard to annual spending limits.

As you all know, the TEA-21 reauthorization bill is still in process. Section 1101 of the House bill would set aside \$210 million in FY 2005, \$215 million in FY 2006, \$220 million in FY 2007, \$227 million in FY 2008, and \$232 million in FY 2009 for grade crossing safety, for a total of \$1.1 billion. The FY 2005-2009 funding levels in the House bill would significantly increase safety for motorists at grade crossings. The House also makes a number of important programmatic improvements — for example, clarifying that hazard elimination funds (Section 152) are also available to be used for grade crossing improvement purposes.

Section 1401 of the Senate bill would set aside \$187 million annually from the Highway Safety Improvement Program for the Section 130 program for a total of \$935 million over fiscal years 2005-2009. While the Senate establishes this important set-aside, it also provides that highway-rail grade crossing improvements can be funded through the \$6.6 billion available for the Highway Safety Improvement Program. Railroads appreciate this important recognition that improvements at grade crossings are critical elements in the nation's effort to improve motorists' safety.

Railroads are grateful for the efforts of both the House and Senate to increase funding for this important program. To ensure the greatest level of protection for motorists, we strongly support the grade crossing language and funding levels contained in the House bill for FY 2005-2009.

#### **Grade Crossing Warning Devices Are Highway Control Devices**

The Section 130 program is not a "raid" on highway funds, for the simple reason that grade crossing warning devices are highway traffic control devices, there to protect motor vehicles, not trains. Grade crossing warning devices are generally not even visible to a locomotive engineer. Indeed, it has long been recognized authoritatively that safety at highway-rail grade crossings, by its very nature, is primarily a motorist responsibility.

For example, in 1935, the U.S. Supreme Court (in *Nashville, C. & St. L. Ry. v. Walters*) issued a landmark decision on the topic of grade crossings. Writing for the majority, Justice Brandeis wrote, "The railroad has ceased to be the prime instrument of danger and the main cause of [grade crossing] accidents. It is the railroad which now requires protection from dangers incident to motor transportation."

In the early 1960s, the Interstate Commerce Commission conducted a comprehensive investigation of public safety at highway-rail grade crossings. The Commission's report<sup>4</sup>, issued on January 22, 1964, contains a number of instructive observations, including the following:

"It is inescapable from a review of the facts developed in this proceeding that the only realistic conclusion that can be reached is that most of the rail-crossing accidents are caused by human failure arising from noncompliance by the drivers with the applicable Commission regulations or the State laws and regulations.

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<sup>4</sup> "Prevention of Rail-Highway Grade-Crossing Accidents Involving Railway Trains and Motor Vehicles," 322 I.C.C., pp. 1-92, decided January 22, 1964.

...One of the basic elements to be considered in this proceeding is the cost of upgrading crossings and the installation of additional grade-crossing protection, and upon whom the cost burden should fall. For practical reasons this cost should be borne by public funds as users of the crossing plus the fact that it is the increasing highway traffic that is the controlling element in accident exposure at these crossings....Insofar as this record is concerned, the consensus supports a conclusion that the major costs of grade separation and protection at rail-highway grade crossings should be borne by the public since the public is the principal recipient of the benefits derived from grade-crossing protection.

...In the past it was the railroad's responsibility for protection of the public at grade crossings. This responsibility has now shifted. Now it is the highway, not the railroad, and the motor vehicle, not the train which creates the hazard and must be primarily responsible for its removal. Railroads were in operation before the problem presented itself and if the increasing seriousness is a result of the increasing development of highways for public use, why should not the cost of grade-crossing protection be assessed to the public."

The FHWA's own regulations today stipulate that "projects for grade crossing improvements are deemed to be of no ascertainable net benefit to railroads and there shall be no required railroad share of the costs."<sup>5</sup>

Notwithstanding this DOT finding, railroads currently spend more than a quarter of a billion dollars per year on grade crossings.

#### **Comprehensive Highway-Rail Crossing Safety Agenda**

In addition to increasing funding for the Section 130 grade crossing program, railroads support a comprehensive agenda of engineering, education, and enforcement actions that would further improve grade crossing safety.

The June 2004 report on grade crossings by the DOT Office of Inspector General included a number of recommendations regarding an action plan for grade crossing safety. While the AAR may have disagreements on certain of the finer points of some of the

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<sup>5</sup> See Code of Federal Regulations, Title 23, Chapter 1, Section 646.210.

recommendations, we do agree that, on balance, the recommendations constitute a helpful and sound approach to crossing safety.

In addition, the AAR respectfully suggests that Congress strongly consider the adoption and implementation of the following set of grade crossing safety and trespasser prevention initiatives, a few of which I have mentioned earlier:

- Adopt uniform national guidelines for grade crossing closures and construction.
- Require the adoption of highway design standards that ultimately eliminate grade crossings on the National Highway System (NHS).
- Consistent with a recommendation of the National Committee on Uniform Traffic Control Devices, modify the Manual of Uniform Traffic Control Devices to call for the addition of highway "Yield" or "Stop" signs, where appropriate, on the same post as a crossbucks at public passive grade crossings.
- Redefine "private grade crossings" in such a manner that all grade crossings that are routinely accessible to the general public are eligible for Section 130 funding.
- Fund a research and development program to design effective low-cost active warning systems for grade crossings, and continue evaluations of the effectiveness of more advanced warning device systems such as four quadrant gates.
- Require a minimum set-back or physical safety barrier between active railroad tracks and adjacent parallel trails, paths, and other recreational uses.
- Enhance grade crossing traffic law enforcement by requiring grade crossing safety as part of driver's license educational curriculum and testing; by maintaining tough grade crossing traffic violation penalties; by providing appropriate incentives to promote the increased use of photo enforcement technology at grade crossings; and by retaining full-time FRA enforcement liaison officers in each of the agency's regions.
- Strongly discourage the promotion of illegal activity on railroad property and continue to fund the national Operation Lifesaver grade crossing and pedestrian safety program.

Finally, in response to a legislative mandate, an FRA final rule on the use of locomotive horns at highway-rail grade crossings took effect on June 24, 2005. The final rule requires that locomotive horns be sounded to warn highway users at public highway-

rail crossings of an approaching train, a safety precaution that locomotive engineers have engaged in for more than 100 years.

The new rule provides an opportunity for localities nationwide to mitigate the effects of train horn noise by establishing new "quiet zones," and details actions communities with pre-existing "whistle bans" can take to preserve the quiet they have become accustomed to.

Railroads support the sounding of locomotive horns because it saves lives. FRA research has shown that, all else equal, a whistle ban will result in a 62 percent average increase in collisions at grade crossings equipped with active warning devices. For this reason, the silencing of horns via the creation of "quiet zones" should be allowed only when it can be accomplished without jeopardizing public safety.

Thank you for the opportunity to testify today. The rail industry is committed to working closely and cooperatively with Congress, individual states, the FRA, and others to reduce the frequency of accidents at highway-rail crossings.

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*Eddie Bernice Johnson*  
Congress of the United States  
30th District, Texas

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Opening Statement for the Honorable Eddie Bernice Johnson  
House Subcommittee on Railroads  
Hearing: Railroad Grade Crossing Safety Issues  
Thursday, July 21, 2005 – 2167 RHOB

**Thank you Mr. Chairman.**

**I want to thank you and Ranking Member Brown for holding this important hearing this morning.**

**Of all the critical components necessary for improving this nation's freight and passenger rail system, none exceed the vital importance of increased safety at highway-rail grade crossings.**

**Since 1980 highway-rail crossing incidents at America's quarter of a million highway-rail crossings have fallen seventy-two percent.**

**According to FRA, in 1980, roughly ten thousand crossing collisions resulted in 833 deaths and 4000 injuries.**

**In 2003, there were roughly three thousand collisions resulting in 300 deaths and 1000 injuries.**

**In my home county, Dallas county, highway-rail grade crossing incidents have declined roughly six percent over the past five years.**

**Federal funding made available through the Section 130 program, creative public/private partnerships, grade crossing consolidations, increased enforcement for violators, and improved public outreach have done exceptional jobs in reversing the once upward trending incident rate.**

**Yet, in spite of this progress, over four hundred motorists and pedestrians are killed each year in grade-crossing accidents.**

**Furthermore, combined with trespasser deaths, fatalities at highway-rail grade crossings still account for nearly ninety-five percent of all U.S. rail fatalities.**

**So, the challenges before us are real and we're going to have to take a hard look at what we can do to reduce grade crossing incidents and further educate Americans about the importance of grade-crossing safety.**

**As I close, I want to thank our witnesses that have come before us to testify this morning.**

**I look forward to their testimony, as I am particularly interested in learning more about the current status of improving accident reporting amongst railroads, FRA's investigative practices regarding all crossing collisions, and also what we as a body may do to further assist them.**

**Increasing safety at our nation's highway-rail grade crossings should be a priority for all vested stakeholders.**

Before the Transportation and Infrastructure Committee  
Railroads Subcommittee  
U.S. House of Representatives

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## **Highway-Railroad Grade Crossing Safety Issues**

**Statement of  
The Honorable Kenneth M. Mead  
Inspector General  
U.S. Department of Transportation**



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Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to testify today on the Federal Railroad Administration's (FRA) oversight of highway-railroad grade crossing safety. We issued major grade crossing safety reports in 1999 and 2004, and we have another report in process. Our testimony is based on this body of work. In 2004, there were 3,045 grade crossing collisions resulting in 368 fatalities. There have been significant strides in reducing fatalities at grade crossings over the last 10 years, but more can be done to prevent deaths and serious injuries. We commend the Chairman and Subcommittee for holding this hearing.

In 1994, the Department set a goal to reduce grade crossing fatalities by 50 percent over the following 10 years. At that time, there were 626 deaths from crossing collisions. Over those 10 years, the Department made significant progress toward reaching its goal. The number of grade crossing collisions declined by 39 percent and fatalities fell by 47 percent to 332 deaths in 2003. Most of the progress FRA achieved came from closing about 41,000 crossings and installing automatic gates and flashing lights at about 4,000 other crossings with a high probability for collisions.

Despite this progress, the number of deaths at crossings rose 11 percent in 2004, to 368. This indicates that continued attention needs to be paid to efforts to improve safety. Further progress can also be expected to be more difficult and to yield incrementally fewer benefits. In other words, FRA has picked the "low-hanging fruit," and additional gains will be harder to achieve. To illustrate, automatic warning devices do not prevent all accidents. Nearly half of the crossing collisions that occurred in the last 5 years occurred at crossings *with* active warning devices. More importantly, further progress will be difficult because railroad accident reports attributed 91 percent of collisions (over the last 5 years) to reckless or inattentive drivers. For example, drivers ignore warning signs or even drive around barriers as trains approach.

To its credit the Department is continuing its focus on improving grade crossing safety. In 2004, at the direction of Congress, the Department issued a new action plan that calls for a comprehensive Department-wide effort to adopt a uniform strategy to further reduce crossing collisions and fatalities. The new plan identifies several initiatives, including strengthening law enforcement by vigorously enforcing grade crossing traffic laws to discourage dangerous behavior by motor vehicle drivers.

FRA also issued three new rules to enhance safety at crossings this year pertaining to the use of reflective stickers on railroad cars to increase visibility; strengthening requirements for sounding horns at crossings; and improving the crashworthiness

of locomotive event recorders. These are all important actions, but our recent audit work indicates that greater attention is needed in the areas of reporting and investigating grade crossing collisions, and strengthening enforcement when an FRA inspector cites a railroad for a safety defect.

In the summer of 2004, news reports raised serious questions about the reporting and investigation of grade crossing accidents. Responding to these concerns, Representative James L. Oberstar, Ranking Member of the House Committee on Transportation and Infrastructure; Representative Corrine Brown, Ranking Member of this Subcommittee; and Senator Daniel K. Inoyue, Ranking Member of the Senate Committee on Commerce, Justice, and Science; asked us to review FRA's oversight of grade crossing accident reporting, investigations, and inspections.

We are finalizing our work on this request and will discuss three areas that FRA needs to address as it moves forward: improving accident reporting, conducting more investigations of crossing collisions, and strengthening enforcement of crossing safety regulations.

1. *Railroads failed to report 21 percent of serious crossing collisions to the National Response Center (NRC) and FRA can do more to enforce this reporting requirement.* Railroads are required to report serious accidents involving fatalities to the National Response Center immediately, so the Federal government can properly respond. We found 21 percent of serious crossing collisions were not being reported at all, let alone in a timely way. Our analysis showed that 115 of the 543 serious grade crossing collisions that occurred between May 1, 2003, and December 31, 2004, should have been reported to NRC, but were not in its database. These unreported crossing collisions killed 116 people. These collisions were ultimately reported to FRA within 30 to 60 days after the collision, as required, but that was too late to allow Federal authorities to take prompt action. FRA only recently began reconciling its database with the NRC, and told us that they plan to penalize railroads for failing to notify NRC. These enforcement efforts need to be sustained to ensure that railroads properly report serious accidents.

FRA should also examine ways to clarify its requirements for reporting collisions to NRC to avoid any confusion on the part of railroad employees. We found eight different FRA criteria for reporting collisions to NRC. Some of these applied to any train accidents, and others applied only to grade crossing collisions. A simple way to clarify this is to require reporting to NRC any collision that results in one fatality or one injured person being taken to a hospital.

2. *The Federal government investigates very few crossing collisions and needs to develop strategies to increase its involvement in investigations.* FRA investigated 9 of the 3,045 crossing collisions that occurred in 2004. FRA investigated 47, or 13 percent, of the 376 most serious crossing collisions that occurred from 2000 through 2004, according to FRA's accident database. We found that no Federal investigations were conducted for the other 329 serious crossing collisions, which caused 159 deaths and 1,024 injuries. FRA officials stated that the National Transportation Safety Board (NTSB) is the lead Federal agency responsible for investigating accidents, not FRA. However, NTSB tends to investigate only major crossing collisions, and conducted just seven crossing investigations from 2000 to 2004. Because the Federal government does not independently investigate most collisions, information that FRA gets concerning the causes comes almost exclusively from self-reporting by railroads.

The railroads' reports attribute over 90 percent of the collisions to motorists, and FRA as a practice, does not conduct its own investigation to verify these findings. For example, FRA does not routinely review and analyze locomotive event recorder data, state and local police reports, or state railroad inspectors' collision reports. Collecting independent information about accidents would substantially improve FRA's ability to understand the causes of grade crossing collisions and better target collisions that FRA decides it should itself investigate. We think this is especially important given the limited resources of FRA's inspection staff.

3. *FRA should strengthen its enforcement of grade crossing safety regulations.* FRA inspectors identified 7,490 critical safety defects out of 69,405 total safety defects related to railroad crossing warning signals, from 2000 through 2004. But they recommended only 347—about 5 percent of critical defects—for violations, which carry a fine. Critical defects include the failure of a signal to activate or the failure of a railroad employee to repair signal malfunctions in a timely manner. Before fines can actually be assessed, however, the recommendations must go through an adjudication process including first, approval by regional FRA officials and then, approval by the Chief Counsel at FRA's headquarters. Even if the Chief Counsel agrees to assess a fine, the railroads typically negotiate with FRA, and are usually successful in decreasing the fines. In total, FRA collected only \$271,000 in fines from railroads in 2003 for grade crossing signal violations.

FRA needs to consider whether the small number of violations recommended for civil penalties and the low amounts of fines collected

sufficiently encourage railroads to better comply with Federal safety standards. FRA needs to emphasize enforcement by issuing more violations and assessing civil penalties when critical safety defects are discovered. We note that following the Secretary's announcement of the Department's new Action Plan, FRA assessed one railroad \$298,000 for grade crossing signal violations related to a single collision that killed two people. This fine was larger than the total of all of the fines imposed upon all of the railroads in 2003 for grade crossing signal violations. That level of penalty can be expected to focus railroads' attention on crossing safety.

The focus of our current audit work builds upon the grade crossing safety report we issued in June 2004. The 2004 report focused on the Department's progress in implementing its 1994 Highway-Rail Grade Crossing Safety Action Plan and highlighted collision trends for targeting future grade crossing safety improvements. We recommended that the Department adopt a more targeted approach to focus on the states and public crossings that continue year after year to have the highest number of crossing collisions. This more targeted approach would result in these states developing an action plan that identifies specific steps to improve safety at those crossings that continue to have collisions. For example, FRA needs to continue to upgrade crossings that do not have active warning devices, based on the frequency of accidents at those crossings. We also recommended that FRA focus its safety efforts by encouraging states to strengthen traffic enforcement strategies and target motor vehicle drivers that violate grade crossing laws and warnings. The Department has made progress in implementing these recommendations.

In February 2005, we also reported<sup>1</sup> that FRA needs to use trend analysis to target its inspection and enforcement efforts on the problems that are most likely to result in accidents and injuries, and use other data analysis tools to examine key indicators of a railroad's safety condition. In response, FRA issued a new National Rail Safety Action Plan, which represents the Department's aggressive new approach to improving safety throughout the railroad industry. This plan is intended to strengthen its oversight of railroad safety and improve the quality and reliability of the information it uses in oversight activities.

We would like to now address the three areas in greater detail.

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<sup>1</sup> Memorandum to Acting Federal Railroad Administrator Robert D. Jamison: "Safety-Related Findings and Recommendations," February 16, 2005.

**1. Railroads failed to report 21 percent of serious crossing collisions to the National Response Center (NRC) and FRA can do more to enforce this reporting requirement.** We found that 21 percent of serious rail grade crossing accidents were not reported to the National Response Center. Despite Federal regulations requiring the railroads to notify NRC by telephone of serious grade crossing collisions within 2 hours, we found six large railroads and several smaller ones failed to report some serious grade crossing collisions to NRC. From May 1, 2003 through December 31, 2004, 115 serious grade crossing accidents, or 21 percent of the 543 serious accidents that should have been reported to NRC, were not in its database. These unreported accidents killed 116 people.

For example, on October 29, 2003, a Class I railroad did not notify NRC when one of its freight trains collided with a motor vehicle at a public grade crossing in Tennessee. The 18-year old motor vehicle driver died shortly after arriving at the hospital. FRA told us that the underreporting of serious grade crossing accidents is largely attributable to injured highway users dying after they were taken from the grade crossing accident scene. FRA officials told us that confusion by railroad employees about which accidents to report to NRC also contributes to some missed reporting. FRA could address both problems by simplifying the reporting requirements, which we found complex. An easy fix would be to require accidents that result in even one serious injury to be reported.

When we issued our June 2004 report, FRA had not established a formal mechanism to identify serious accidents that had not been reported. In July 2004, FRA established a process to verify whether the railroads were reporting grade crossing collisions to the NRC by comparing the NRC's data with reports that railroads submit to a separate FRA database within 30 to 60 days after a grade crossing collision. FRA officials recently informed us that they plan to take enforcement action to fine the railroads if they fail to report serious accidents to NRC in a timely manner.

**2. The Federal government investigates very few crossing collisions and needs to develop strategies to increase its involvement in investigations.** We found that FRA investigates less than 1 percent of all crossing collisions (see Table 1), and 2 percent of the serious collisions reported to the NRC. As a result, FRA relies heavily on accident reports submitted to it by the railroads to evaluate the circumstances, probable causes, and responsible parties in most crossing collisions. FRA does not routinely review independent sources of information for these collisions, such as police reports.

Typically, crossing collisions are promptly investigated only by railroad employees and state or local law enforcement officers, without any Federal

officials present. For most of the nearly 3,200 collisions that occur each year, railroad employees are among the first to arrive at the accident scene to investigate collisions. The railroads are required to submit an accident report to FRA within 30 days after the end of the month in which the crossing collision occurred.

State or local law enforcement officers also promptly arrive at the scene of crossing collisions to independently document it, but their reports are not routinely requested by FRA. With few Federal investigations and independent reports from law enforcement officers, FRA has opted to rely primarily on the information in the railroads' accident reports regarding the nature, cause, and party responsible for most crossing collisions.

Both NTSB and FRA have the legislative authority to investigate any crossing collision, but NTSB tends to focus on high-profile crossing collisions with multiple fatalities. In March 2000, for example, NTSB led the investigation of a collision between a CSX freight train and a school bus in Tennessee that killed three and injured seven. FRA also participated in this investigation.

FRA officials told us its ability to investigate crossing collisions is limited by the number of

Year	Train Accidents		Crossing Collisions		No.	% No.		
	Number	Investigated	Number	Investigated				
2000	16,918	57	0.3%	3,502	12	0.3%		
2001	16,087	75	0.5%	3,237	18	0.6%		
2002	14,404	54	0.4%	3,077	10	0.3%		
2003	14,239	76	0.5%	2,963	4	0.1%		
2004	13,939	93	0.7%	3,045	9	0.3%		
<b>Total</b>	<b>75,587</b>	<b>355</b>	<b>0.5%</b>	<b>15,824</b>	<b>53</b>	<b>0.3%</b>		

Source: FRA

inspectors it has. FRA has an inspector workforce of approximately 400, who oversee railroad compliance with Federal regulations by conducting regular inspections of railroad property, such as equipment, tracks, and signals. These inspectors also investigate accidents, complaints, and signal failures, and only 64 of them have the expertise to inspect signal and train control devices. Collecting independent information about accidents would substantially improve FRA's ability to understand the causes of grade crossing collisions and better target collisions that FRA decides it should itself investigate. We think this is especially important given the limited resources of FRA's inspection staff. FRA inspectors normally investigate only those crossing collisions that involve the malfunction of automated warning devices, or involve a commercial vehicle or school bus and result in one death or several serious injuries, or death to three or more highway users. While we found that FRA did investigate all but one of the collisions that met its criteria, the criteria itself requires the investigation of very few collisions.

The fact that a fifth of all serious crossing collisions were not reported to NRC further limits the number of investigations that FRA conducts.

According to FRA's accident database, FRA investigated only 47, or 13 percent, of the 376 most serious crossing collisions that occurred from 2000 through 2004. We found that no Federal investigations were conducted for 329 of these crossing collisions, which resulted in 159 deaths and 1,024 injuries. Unlike FRA, the Federal Aviation Administration's (FAA) inspectors arrive at the scene of 80 percent of all aviation accidents. FAA investigated about 1,352 aircraft accidents in 2004 that killed 645 people. However, it is important to note that FAA has an inspection staff that totals 3,579. FAA also has an Office of Investigations that oversees the collection of information for aviation accidents.

**3. FRA should strengthen its enforcement of grade crossing safety regulations.** FRA has made limited use of its regulatory enforcement authority to encourage compliance by railroads that fail to properly inspect and maintain grade crossings by assessing civil penalties (see Table 2). Active highway warning signals at

grade crossings play a critical role in protecting lives of motorists and railroad employees. We found that from 2000 through 2004, FRA inspectors identified 7,490 critical safety defects, out of 69,405 total safety defects related to railroad crossing warning signals, but recommended only 347—

about 5 percent of critical defects—for violations. A violation is a recommendation that a civil penalty be assessed. During the same period, FRA inspectors identified 2,692 instances of railroad employees failing to repair a grade crossing warning system "without undue delay," but recommended only 67 of these instances—about 2.5 percent—for violations.

Just such a failure resulted in the deaths of an elderly couple in a collision at a crossing in Henrietta, New York, on February 3, 2004. Seven days earlier, on January 27, 2004, railroad employees disabled the warning signal system that was causing false warning activations. The day after the fatal crash, FRA cited the railroad for not promptly repairing the system, but did not recommend a civil penalty. The following day, an FRA inspector recommended that the railroad be penalized for failing to stop its train at the crossing and to flag the traffic. Later, one more penalty was recommended for failing to repair without undue delay.

**Table 2. Grade Crossing  
Signal Violation Fines, 2000-2003**

Year	Class I Railroads	Other Railroads	Total
2000	\$52,850	\$8,800	\$61,650
2001	\$142,550	\$97,450	\$240,000
2002	\$96,450	\$59,650	\$156,100
2003	\$173,350	\$97,600	\$270,950
<b>2000-2003</b>	<b>\$465,200</b>	<b>\$263,500</b>	<b>\$728,700</b>

Source: FRA

This case received a great deal of public scrutiny and was aggressively pursued by the State's Attorney General. FRA recently reported that it also assessed and collected \$298,000 in penalties against this railroad for this collision.

We have found a number of factors that limit FRA's enforcement actions. First, FRA has not set specific time limits for the repair of malfunctioning warning systems. FRA's rules prohibit an "undue delay," that is, one that is "unjustifiable or excessive." In our view, this standard is overly subjective and makes enforcement more difficult because there is no clear expectation of the time frame for correcting deficiencies.

Second, all regulatory agencies rely on voluntary compliance. However, in the case of railroad grade crossings, from 2000 through 2004, FRA inspectors identified 7,490 critical safety defects, those that have the most direct safety impact, but only recommended 347—less than 5 percent—for civil penalties. These defects include the failure of a signal to activate, and the failure of an employee to respond in a timely manner to the report of a signal malfunction.

Third, even when an FRA inspector decides that a railroad should be issued a violation, the inspector does not issue a citation that requires a railroad to pay a fine for failing to comply with safety standards. Before fines can actually be assessed, the recommendations must go through an adjudication process including first, approval by regional FRA officials and then approval by the Chief Counsel at FRA's headquarters. Even if the Chief Counsel agrees to assess a fine, the railroads typically negotiate with FRA, and are usually successful in decreasing the fines. In total, FRA collected only \$271,000 in fines from railroads in 2003 for grade crossing signal violations.

FRA needs to consider whether the small number of violations recommended for civil penalties and the low amounts of fines collected sufficiently encourage railroads to better comply with Federal safety standards. FRA needs to emphasize enforcement by issuing more violations and assessing civil penalties when critical safety defects are discovered. We note that following the Secretary's announcement of the Department's new Action Plan, FRA assessed one railroad \$298,000 for grade crossing signal violations related to the Henrietta, New York, collision we mentioned earlier. This fine was larger than the total of all of the fines imposed upon all of the railroads in 2003 for grade crossing signal violations. That level of penalty can be expected to focus railroads' attention on crossing safety. FRA should sustain this type of aggressive enforcement activity. We hope that this is not just an isolated case, but represents FRA's new approach to enforcing grade crossing safety regulations.

That concludes my remarks. I would be glad to answer any questions you may have.

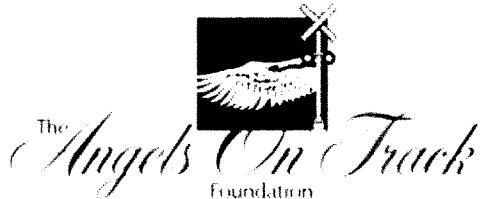
**Statement of Congressman Robert Menendez**  
**Rail Subcommittee Hearing on Grade Crossing Safety**  
**July 21, 2005**

Thank you very much for holding this important hearing, Mr. Chairman, and I'll keep my remarks brief. Like most other regions of the country, my district has a large number of grade crossings, many of which have no way to warn people that a train is actually approaching, or to physically stop them from entering the crossing. Fortunately, we have not had many fatalities from grade crossing accidents in my district, but I am concerned about the future. Most of our train traffic comes from the mega-port of the East Coast, Port Newark and Port Elizabeth, and while the tremendous growth of the port in recent years has meant more jobs and more economic growth, it has also meant more trains. This means that rail lines there were previously dormant are now becoming active, and people that may have become complacent around grade crossings will have to be more careful. But public awareness is only part of grade crossing safety; the crossings themselves will also have to be improved with better signaling and gates, which are really the most effective methods for making crossings safer.

So I think grade crossing safety is going to be an increasingly important issue in my district and throughout New Jersey in the years ahead, which is why I'm glad we're holding this hearing now.

I'm also hopeful that the testimony of the Inspector General will spur the FRA into more thorough and aggressive investigations of grade crossing incidents. Although I respect the railroads and the work they do to improve their safety record, I'm not sure that relying on their reports as the sole source on the cause of accidents will necessarily lead to the most accurate data.

I'd like to thank the witnesses for being here today, and once again I'd like to thank you, Mr. Chairman, for scheduling this hearing. I yield back the balance of my time.



**REMARKS OF VICKY MOORE**  
**BEFORE THE UNITED STATES HOUSE OF REPRESENTATIVES,**  
**TRANSPORTATION AND INFRASTRUCTURE COMMITTEE,**  
**RAILROAD SUBCOMMITTEE**  
**July 21, 2005**

Thank you, Chairman LaTourette, Ranking Member Brown, and other distinguished sub-committee members. I appreciate the opportunity to testify on issues pertaining to grade-crossing safety. Along with my husband, Dennis, I am a trustee of The Angels On Track Foundation, an Ohio-based, non-profit entity devoted to grade-crossing safety. Our foundation was formed after our two sons were involved in a catastrophic grade-crossing accident in 1995. Our youngest son, Ryan, and two others were killed. The approach to the crossing was steep and overgrown vegetation restricted the view of approaching trains. The crossing was not protected with gates; it only had crossbuck signs. I come before you not as a grieving mother but as a representative of the thousands of families that have lost loved ones in grade-crossing accidents, and who collectively have no representation or national voice.

Over the past decade, The Foundation has funded gate installations in Ohio because gates have proven to be the safest type of protection device. Furthermore, we have conducted extensive research on safety matters, created an educational subsidiary called Crossing To Safety; have advanced our message that "bad crossings kill good drivers" and have learned about the process that administers grade-crossing safety. Today, I share some of our findings with you in the hope that change will be forthcoming.

1. We have learned that following grade-crossing accidents, it is automatically assumed that all motorists are at fault. Behind this unsupported

assumption is the “failure to yield” misnomer. Since railroads have the right of way at crossings, it is accepted that all accidents are caused by motorists failing to yield. The important question should be “WHY do motorists fail to yield to approaching trains?” Maybe they couldn’t see and/or hear the train through no fault of their own. After all, courts have found that railroads and/or deficient crossings have contributed to accidents. Furthermore, many accidents occur in rural areas without eyewitnesses. Why should we rely solely on railroads to identify causes of accidents that they themselves are involved in? We believe that FRA, Operation Lifesaver, and the railroad industry should expunge their “victim-to-blame” mantra that is based on railroad accident reports citing “failure to yield”. This misleading message is not only unsupported, it immediately pronounces blame and gives self-anointed good drivers a false sense of security in approaching dangerous grade crossings.

(ATTACHMENT #1)

2. We have learned that many unprotected crossings contain motorist sight obstructions along tracks on railroad rights-of-way – and I’m not talking about private land -- that do not meet requirements of the FRA as stated in its Railroad-Highway Grade Crossing Handbook; national standards of AASHTO, or in Ohio, State law. A few States have laws in this area, but they are inconsistent. It is illogical that national sight-distance standards addressing public safety are not provided for in the Code of Federal Regulations or as an FRA rule, while vegetation affecting railroad safety is. We urge DOT to become pro-active in ensuring that this happens.

A recent NTSB safety study of passive grade crossings (SAFETY STUDY, Safety At Passive Grade Crossings PB98-917005, NTSB/SS-98/03) found 57% of the 62 cases studied had “limited sight distance”. The majority of grade crossing accidents happen at passive crossings – which handle less traffic than do gated crossings- and that a number of passive crossings have deficient crossing conditions such as limited sight distance.

Federal legislation exists relating to sight obstructions at railroad crossings but is extremely limited in that it only addresses vegetation on railroad property or the adjacent roadbed that: 1) affects track carrying structures; 2) obstructs visibility of railroad signs/signals; 3) interferes with railroad employees performing duties; 4) prevents proper functioning of signal and communication lines; and 5) prevents railroad employees from visually inspecting moving equipment. While federal law addresses vegetation on railroad property, it does not address vegetation and sight obstructions that limit the ability of motorists to see oncoming trains and does not include required sight-distance standards as recommended by the Association of American State Highway and Transportation

Officials (AASHTO). In addition, sight obstructions other than vegetation that limit motorists from seeing down the tracks, are not addressed.

The Code of Federal Regulations states that railroads are to inspect their tracks "...twice weekly with at least one calendar day interval between inspections, if the track carries passenger trains or more than 10 million gross tons of traffic during the preceding calendar year." While the Code does not mention vegetation, railroad train crews could also be looking for vegetation that obscures the view of the motoring public at all grade crossings and also endangers train crews as well. Afterall, railroad crews pass through and inspect crossings on a daily basis.

(ATTACHMENT #2)

3. We have learned that railroads are overly influential in matters of grade-crossing safety. They have authored affidavits for public officials in judicial proceedings; reportedly have close ties with the FRA; and have dominated Operation Lifesaver at the State level, and on its national Board of Directors. Partnerships are formed out of common interests and, for-profit companies such as railroads and public regulatory agencies have natural conflicts of interest. Ironically, in regard to Operation Lifesaver, our foundation was denied a seat on the Board of Directors because we were labeled "advocates," while Operation Lifesaver's Board is comprised of lobbyists, railroad personnel, and special interests. Yes, we are advocates, but for no other reason than that of public safety. We believe that the federal government should withhold its funding of Operation Lifesaver until it opens its Board to include organizations such as ours, and modifies its domination by the railroad industry.

(ATTACHMENT #3)

4. We have learned that there is economic waste of valuable taxpayer dollars in the system. Railroads are awarded sole-source contracts to install gates and their expenditures are rarely audited. Excessive costs for installation of gates prohibit states and local communities from funding protection at crossings, and thus lives are lost. Based on our review of railroad invoices, we suspect that the installation of crossing gates is a railroad profit center. We believe installations should be done on a cost – not profit – basis, and that audits should be a requirement to receive federal funds.

Crossing improvements installed in Ohio, provide examples of elevated costs. In 1997, the estimated cost for installation of gates and lights amounted to \$117,053. Less than 10 years later, estimates range anywhere from \$176,000 to over \$290,000 for the same technology, equipment, engineering, and labor costs. This

increase is not only greater than the rate of inflation; it includes unexplained “additives”.

(ATTACHMENT # 4)

5. And finally, we learned that the FRA and others have mistakenly taken credit for the downward trend in accident rates over the past 30 years, when, in fact the major factors were: (1) 25,000 new crossing-gate installations; (2) the closure of over 100,000 crossings, and (3) downsizing and restructuring of the railroad industry. Unfortunately, the accident rate increased in 2004 and dangerous unprotected crossings are plentiful throughout the country. FRA, railroads and Operation Lifesaver should be held to a higher level of accountability than the cover of a declining accident rate.

(ATTACHMENT #5)

In conclusion, we believe people's lives will continue to be needlessly lost unless an effective, truthful and transparent system is implemented addressing grade crossing safety. We encourage our nation's railroads; DOT, FRA, OLI and others to become strong advocates for public safety by changing some of their current practices.

Again, thank you for the opportunity to appear before you today. I am here with my husband, Dennis, and Dr. Harvey Levine, our Director of Crossing To Safety. I will be pleased to answer questions.



**Additional comments by Vicky Moore**

The Angels on Track Foundation, after Railroad Subcommittee Hearings on July 21, 2005

**STOP SIGNS:**

The Foundation views the recent NTSB recommendation for installing STOP signs at crossings as a dangerous Band-Aide approach to railroad crossing safety. Numerous transportation and government studies have proven STOP signs are the most dangerous signage at crossings. The FRA's 2003 Interim Annual Report posted statistics based on warning devices and found STOP signs resulted in 5.01 collisions per 100,000 average daily traffic miles versus 0.51 collisions for crossings equipped with gates. Casualties are 5-11 times more likely at railroad crossings with stop signs than crossings equipped with automated gates.

Past research on the use of STOP signs at passive (non-gated) crossings by the FHWA determined STOP signs can actually make a crossing more dangerous. Federal highway rules state stop signs are only allowed at crossings where the STOP sign doesn't affect the safety of the crossing. This statement demonstrates knowledge by safety engineers that STOP signs can reduce safety at grade crossings. The vast majority of collisions occur because drivers are unaware of a trains' presence.

FHA/AASHTO sight recommendations (USDOT/FHA, Railroad Highway Grade Crossings Handbook, Second Edition, FHWA-TS-86-215, pg.133) are based on highway distances for a moving vehicle, not one that is stopped at the crossing. Stopped vehicles require the maximum sight distance requirements at railroad crossings.

The State of Ohio has done extensive research on STOP signs at rail-highway crossings.

The Ohio Manual on Uniform Traffic Control Devices (OMUTCD), Traffic Engineering Manual states "STOP signs at highway-rail grade crossings are generally not effective; driver compliance to these devices is poor; the use of

these devices creates contempt and disrespect for all STOP signs; and that STOP signs at highway-rail grade crossings are often responsible for an increase in rear-end collisions at these crossings.” Ohio’s Department of Transportation has adopted a policy disapproving the installation of STOP signs at highway-rail crossings, except for very unusual or exceptionally hazardous locations.

It is the Foundation’s hope that Congress will move forward with Section 130 funding to eliminate hazards at railroad grade crossings by specifically earmarking funds for the installation of gates at unprotected crossings.

#### **WHISTLE BANS:**

The Foundation does not support the use of Whistle Bans in communities with active railroad tracks, especially those with non-gated crossings. When sounded properly according to federal regulations, a train horn or whistle might be the only advance warning a motorist may have of an approaching train at a poorly designed crossing without gates and/or sight obstructions that block a motorists’ view. Even crossings protected with gates have been documented to not activate in a “failsafe” manner; combined with repairs of malfunctioning warning system being handled in an untimely manner. In addition, FRA research has shown implementing a whistle ban will result in a 62 percent average increase in collisions at grade crossings equipped with active warning devices.

#### **EVENT RECORDERS:**

Locomotive data and signal event recorders are vital to the determination of railroad operating compliance and accident causes. It has been reported (*NY Times, July 11, 2004 – In Deaths at Rail Crossings, Missing Evidence and Silence*) that railroads have destroyed, mishandled and lost evidence while improperly reporting accidents. It has also been reported that railroads do not keep black-box event recorders in good working order.

Because local law enforcement agencies cannot seize event recorders, they are not given information needed to thoroughly investigate accidents. ALL documents relating to train operations and signal/event data must be preserved. Event recorders document malfunctioning signal equipment which may not be working in a “failsafe” manner, as well as required safety procedures performed by the train crew.

It is our recommendation that all data and signal event recorders be detached (under the supervision of local law enforcement officers) and immediately handed over to local law enforcement agencies for investigation and review, with instructions to mail to the FRA within 24 hours. FRA’s recent rule

requiring stronger “black box” and data collection procedures is a step in the right direction. We encourage the FRA to strictly enforce this new rule, which requires railroads to keep data stored for one year, even if no immediate accident investigation is undertaken.

#### **ACCIDENT SCENE INVESTIGATION:**

The sooner evidence is collected the better. Federal rules require railroads to immediately report crossing fatalities to the National Response Center. Reports are then forwarded to the FRA and NTSB where officials decide to investigate. It is imperative to have an independent investigation without railroad influence or prejudice. State police and law enforcement officers should take the lead in all accident investigations. The FRA should implement a rule aimed at preserving the accident scene until local investigators have recorded, photographed and completed a thorough investigation to preserve vital information. The FRA has always assumed its role as a “regulatory” agency of the railroad industry, not one of fact finding for “the accident investigation”. Vital information regarding accidents has at times been classified “confidential” between the FRA and railroads, forcing victims’ families to file numerous Freedom of Information requests or hire attorneys to obtain accident information. In one particular case, information families received regarding the accident had been “blacked” out.

Currently, local authorities rely on railroad police, railroad investigators, in addition to railroad claims agents for accounts of what happened. This is based on the incorrect assumption by local authorities that the FRA is in charge of the accident investigation. At no time is information gathered on behalf of the public or victims involved.

The accident report filed with the FRA is completed by railroads. The railroads’ view of what happened should not be accepted as what caused the collision or who is at fault.

On-train personnel are not trained to report motorist sight obstructions and rarely admit to such obstructions in their reports. The train engineer and/or conductor cannot be relied upon to provide accurate information regarding motorist behavior such as driving around or through downed gates, especially since there is no category to record malfunctioning gates or equipment.

Local authorities such as police, sheriff, and highway patrol officers have all been trained by the railroads and Operation Lifesaver in Grade Crossing Accident Investigation techniques. The primary focus is on driver responsibility. An example is Box No. 41 on the Railroad Accident/Incident Report which states: (DRIVER: #1. Drove around or thru the gate; #2. Stopped and then proceeded;

#3. Did not stop; #4. Stopped on crossing; and #5. Other). In most cases, no one thoroughly investigates the railroads' conduct.

Local authorities should be charged with the primary accident investigation because of their law enforcement background. Railroad companies, track owners, FRA and NTSB are not law enforcement agencies. The FRA should be called upon to comply with federal regulations pertaining to accident reporting, but should do so only in their capacity as a regulatory agency for railroad procedures, track and signal operations. The FRA's role should be viewed solely as "assisting", with all information gathered shared with local law enforcement agencies in their criminal investigation.

It is our recommendation that the FRA collect, retain and supply all information on all signal and track operations to local authorities when called to an accident scene. Copies of all event and data recorders should immediately be turned over to local authorities for review and investigation; in addition to equipment supplied to local law enforcement agencies to read all tapes confiscated. Copies would then be sent to FRA/NTSB for documentation as well.

It should be noted that NTSB carries no enforcement power and their findings cannot be used by victims and their families in a court of law. All the more reason for an independent, unbiased investigation of all railroad grade crossing accidents.

## **LIST OF ATTACHMENTS**

(ATTACHMENT #1 – Discusses the “victim-to-blame” assumption in more detail.)

(ATTACHMENT #2 – Discusses the issue of motorist sight obstructions in more detail.)

(ATTACHMENT #3 – Discusses the issue of railroad influence in more detail.)

(ATTACHMENT # 4 – Discusses the issue of railroad gate installations in more detail.)

(ATTACHMENT #5 – Discusses the issue of “declining accident rate” in more detail. Attached charts are divided into private and public crossings. Figures clearly show a reduction in the number of crossings. While public crossings have benefited from gate installations, private crossings, not regulated by states for upgrades, have not shown a decline in casualties per crossing.)

## Attachment #1, 1 of 2



### AUTOMATICALLY BLAMING THE VICTIM: A FLAWED PREMISE WITH A HIDDEN RATIONALE

By: Dr. Harvey A. Levine, Director, Crossing to Safety®

For some time, I have been curious as to why victims of railroad-crossing accidents are virtually always blamed for their ill fortune. For example, it is customary for railroads to state in their monthly reports that the cause of a grade-crossing accident is "failure to yield" on the part of the motorist. This is echoed by first responders to accidents – including police – who are told by the train's engineer and conductor that the motorist simply drove in front of the train. The Association of American Railroads believes that, *Public education of grade-crossing dangers and continued elimination of crossings are the most effective way to stop this needless carnage.* Operation Lifesaver avers that, *Highway-rail grade crossing incidents in nearly every case are caused by some type of carelessness on the part of the motorists at the crossing, and that, Driver inattention and impatience are the most common factors contributing to collisions between motor vehicles and trains at highway-rail grade crossings.* And, the Federal Railroad Administration proclaims that, *It is also proper for local authorities, not the Federal Railroad Administration, to investigate the vast majority of crossing collisions, since 94 percent involve motor vehicle driver behaviors as principal factors. We do not enforce safety laws.* Based on the common mantra of insiders, one could easily be led to the conclusion that there is undeniable evidence that the victims overwhelming cause their own demise in railroad crossing collisions. However, there is much evidence to the contrary.

There are at least five reasons why factors other than motorist irresponsibility contribute to railroad-crossing collisions. First, observation reveals that there are thousands of unprotected crossings where motorist sight tolerances do not meet the standards recognized by the United States Department of Transportation, the American Association of State Highway and Transportation Officials, and State law. Second, there have been numerous judicial proceedings where either jury decisions have been made in favor of plaintiffs, or significant settlements have been agreed upon, largely based on evidence of deficiencies at railroad crossings, or improper railroad behavior. Third, a 1998 study by the National Transportation Safety Board revealed that motorist sight obstructions were found in 57% of the cases studied; the cases were 62 post-accident crossings. Fourth,

common sense dictates that many factors could contribute to railroad-crossing accidents, including train engineers failing to sound the alarm, trains speeding, deficient track, malfunctioning signals, motorist sight obstructions, and parked trains at night – that it is folly to universally blame motorists. And fifth, rhetorically speaking, why would billions of dollars of tax-payer money be pumped into improving conditions at railroad crossings if there were no deficiencies that contributed to accidents?

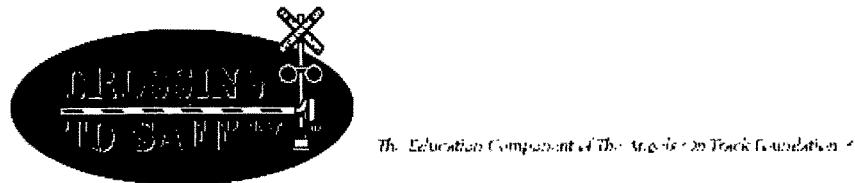
Recognizing that motorists are at fault for some crossing accidents, the question is: Why automatically blame the motorist – even immediately following accidents where it is too early to determine cause? On the surface, the answer can be found in the term “failure to yield.” Since trains always have the right of way at crossings, all accidents can be said to be motorist failure to yield. But such a description is not an accident cause. It is merely a way of restating the fact that the train has the right of way. Therefore, it is downright silly for railroads to always state “failure to yield” as the cause of railroad-crossing accidents, and it is just as inappropriate for others to automatically accept that clause in the same light. Any reasonable person recognizes that the key to accident analysis is finding out why motorists failed to yield – why they may not have heard or seen the approaching train. So beneath the surface there has to be something more to the common mantra of the insiders – some reason that the Federal Railroad Administration cites accident data from the railroads rather than from the National Transportation Safety Board. Based on my analysis of the system charged with providing railroad-crossing safety, I believe the reason to be one of accountability – or lack thereof.

Simply stated, by blaming the victims for virtually all railroad-crossing accidents, insiders have the ability to take credit for positive safety trends and/or events, while avoiding responsibility for negative occurrences. The historic trend of declining crossing accidents has many claimants, but there is no such clamor for among other events, inefficiencies, inadequate data, improper accident reporting, gaps in legislative, missing event recorders, misallocated monies, poor documentation, failed equipment, and deficient crossings. Surely, the accident rate would even have been lower if railroads were pro-active in identifying safety needs at their crossings and helpful in funding ensuing safety improvements – or if the Federal Railroad Administration suggested needed changes in legislation, or was more stringent in its regulation of railroads. Surely, we would know more about the causes of crossing accidents if federal agencies investigated more than a couple of accidents each year, and if they ensured that accidents were reported in a timely and accurate manner. Surely, the system would be more efficient if railroads did not have sole-source contracts to install gates, if railroads did not profit from such installations, and if railroad charges were audited. And surely, motorists would be well served if Operation Lifesaver balanced its message between unsafe crossings and irresponsible motorists.

The truth of the matter is that we don’t know the relative cause of railroad-crossing accidents. Many accidents occur in rural areas with no witnesses. Often, the motorist is deceased. Railroads change the environment almost immediately following accidents and at any rate, there are reasons to question railroad claims. Isn’t it about time that the Federal Railroad Administration and the National Transportation Safety Board accepted

responsibility for knowing why railroad-crossing accidents occur? The answers to why railroad-crossing accidents occur must be found for such answers should go a long way toward more effective and efficient railroad-crossing safety.

## Attachment #1, 2 of 2



### THE HEART OF THE MATTER: THE 94% DELUSION

By: Dr. Harvey A. Levine, Director, Crossing to Safety®

Several years ago, after being lectured to by an official with the Federal Railroad Administration (FRA), United States Department of Transportation (DOT) that motorists are always at fault for grade-crossing collisions because they fail to yield to approaching trains, I decided to ask a question long on my mind. I offered a scenario as the premise – one that was far from extreme. “If you are driving on a road at a legal speed of 40 miles-per-hour -- with cars both in front of and behind you -- and the road elevates to a two-track, main-line railroad grade crossing -- and overgrown vegetation and trees block your vision up and down the track -- and you are facing a bright sun to the left -- although the only traffic sign in front of the crossing is a crossbuck, would you slow down to a complete stop just before reaching the track, even though the cars in front and behind you are retaining their 40 mile per-hour speed?” Without hesitation the FRA official gave an emphatic, “Of course. Motorists must yield to trains no matter what the conditions.” I then reminded him that it would be impractical and probably dangerous to stop at a rail crossing in the middle of a line of cars legally traveling at 40 miles-per-hour. He was incensed enough to stop eating his lunch. “No wonder we have so many incidents,” he said, “With your kind of thinking, I’ll never be out of a job.” He then went into a mini-tirade about the poor driving habits of motorists. Right then and there I realized that what I had already suspected, was reality. Absolute victim blame for grade-crossing collisions was the underlying philosophy of our nation’s railroad-safety, regulatory agency. FRA had bought into the railroads’ position that motorists were fully to blame for virtually all rail-crossing accidents. I thought that if this thesis was truly the case, then there was little, if any, difference between a collision involving an irresponsible driver circling a depressed automated gate in order to save time, and a responsible motorist carefully advancing through an unprotected crossing where his or her vision was significantly obstructed. Furthermore, I knew that the courts had found railroads to be a fault in a number of grade-crossing collisions, and my inspection of hundreds of grade crossings revealed that many were characterized with serious motorist sight obstructions and deficient conditions. Needless to say, I was troubled. But soon thereafter, another arm of DOT gave me cause for alarm, if not downright anger.

In its June 16, 2004 Audit of the Highway-Rail Grade Crossing Safety Program, DOT's Inspector General (IG) concluded that:

***Motorist Behavior caused most public grade crossing accidents.***

*Risky driver behavior or poor judgment accounted for 31,035 or 94 percent of public grade crossing accidents and 3,556 or 87 percent of fatalities, during the 10-year period. With the exception of 22 train passengers and railroad employees, all of these fatalities were motorists. According to accident reports, motorists failed to stop at grade crossings or drove around activated automated gates.*

As expected, the 94% figure representing victim blame, was pounced on by the railroad industry. Edward R. Hamberger, President of the Association of American Railroads, responded to a critical New York Times/Discovery Channel documentary on grade-crossing safety, by stating that, . . . *a recent report by the Inspector General (IG) of the U.S. Department of Transportation found that 94 percent of grade crossing fatalities are attributable to risky driver behavior.* I wondered. Where did the 94% figure come from? A credible analysis undertaken by the IG or accident reports filled out by railroads? Although the IG report used the words, According to accident reports, it was unclear as to the application and depth of IG analysis. Furthermore, the IG's report headlines representing the 94% figure gave the impression of a conclusion – not an inference dependent on the credibility of railroad-provided data. So I called the IG office to inquire about the source of the 94% figure. The answer was, unfortunately, as expected.

In a nutshell, the 94% victim-to-blame figure came from railroad accident reports filed with FRA. With rare exception, on those forms, railroads identify the cause of grade-crossing collisions in two ways. If the crossing is unprotected, the cause is “motorist failure to yield.” If the crossing has a gate, the cause is “motorist encircling an operational, depressed gate.” In essence, the IG did no analysis of grade-crossing collisions. It simply accepted one-sided railroad reports that at best, are subject to bias and misrepresentation. Furthermore, “failure to yield” is not a cause of grade-crossing collisions. The cause is the reason why motorists fail to yield to approaching trains. And motorists may go around depressed gates because they have malfunctioned and been down for long periods of time, with no train approaching. Finally, FRA hardly ever investigates grade-crossing collisions and has no first-hand knowledge of the relative causes of such accidents.

There are two major problems with the 94% figure. On one level, there is evidence that the figure will be canonized as the truth, when in fact, it is not. Single numbers published in a report by federal agencies can take on a life of their own, especially when there is no quantifiable evidence to refute the number – and especially when they support the position of an industry with strong financial capacity and political influence. On a broader level, it is disturbing that FRA and the railroad industry seem to take similar, unsupported positions in a matter of life and death – and it is doubling disturbing that the IG has joined in the fray. The truth of the matter is that there is no reliable study of the relative causes of grade-crossing collisions. In judicial proceedings, blame has been attributed to motorist behavior, railroad failure to sound the locomotive warning system in a prescribed manner, excessive train speed, motorist sight obstruction in approaching

crossings, defective track conditions, and failure of crossing safety devices such as malfunctioning gates. Even Operation Lifesaver – dedicated to responsible motorist and pedestrian behavior at grade-crossing dangers – has recently stated on its web site, that its *... messages do not suggest blame for rail-related incidents. Grade crossing collisions and pedestrian incidents may occur for a variety of reasons.*

In response to a request from Congress, which in turn had been spurred by a series of articles in the New York Times during 2004, the IG is once again investigating the behavior of FRA. The initial part of the investigation is a concentration on the process and validity of railroad accident reports to FRA. This focus presents the IG with an opportunity to correct a major past error – that being, giving the impression that it has concluded that 94% of grade-crossing collisions are due to victim error. All the IG really knew when it published its report in 2004, was that in 94% of the grade-crossing accident reports that railroads had filed with FRA, the industry claimed that victim error was the cause of the collisions. This is far different than the IG concluding anything about the cause of grade-crossing accidents. It is time for FRA and the IG -- both components of DOT -- to correct the misleading figure they have advanced. In the end, it is time for these federal agencies to represent the general public and the cause of efficient and effective grade-crossing safety.

## Attachment #2, 1 of 2



### OVERGROWN VEGETATION AT RAILROAD CROSSINGS

By: Dr. Harvey A. Levine, Director, Crossing to Safety®

Overgrown vegetation that obstructs the ability of motorists to adequately see approaching trains at railroad crossings, has been a contentious and frustrating matter. On one hand, public policy recognizes the need for adequate sight distances at railroad crossings. As stated by the Federal Railroad Administration (FRA) in its Railroad-Highway Grade Crossing Handbook, *The primary requirement for the geometric design of a grade crossing is that it provides adequate sight distance for the motor vehicle operator to make an appropriate decision as to whether to stop or proceed.* Furthermore, Ohio law addresses the removal of obstructive vegetation at railroad crossings, and the adequacy of sight distance is supposed to be a factor that the Public Utilities Commission of Ohio (PUCO) considers in determining the relative dangers of railroad crossings. Still, inadequate sight distance remains a major hazard at railroad crossings, as demonstrated by the findings in litigated railroad-crossing accident cases. Understanding the issues and the needs relating to overgrown vegetation at railroad crossings requires an appreciation as to the limitations of federal and state law on the subject of both vegetation and sight distance.

#### Adequate Sight Distance

Sight distance is the distance from points where motorists approach railroad crossings, to the left and right of the track structure at those crossings. (These distances form a triangle and are also referred to as sight triangles). The adequacy of sight distance depends on the speed of the approaching motor vehicles and trains. In its Handbook, FRA provides a table of "required" sight distance for combinations of motor vehicle and train speeds, in 10 mile-per-hour increments up to 70 miles-per-hour for motor vehicles and 90 miles-per-hour for trains. The FRA sight-distance figures are designated as being required for safe crossing, and have long been accepted in transportation circles as the proper standards.

#### Federal Law

Federal legislation addresses vegetation in stating that: *Vegetation on railroad property which is on or immediately adjacent to roadbed shall be controlled so that it does not:*

- (a) *Become a hazard to track-carrying structures;*
- (b) *Obstruct visibility of railroad signs and signals along the rights of way, and at highway-rail crossings;*
- (c) *Interfere with railroad employees performing normal track-side duties;*
- (d) *Prevent proper functioning of signal and communication lines; or*
- (e) *Prevent railroad employees from visually inspecting moving equipment from their normal duty stations. (U.S.C. 49213.321)*

What is patently evident about the above federal provisions is that they are limited to railroad property; they do not address overgrown vegetation which obscures the sight of approaching trains; and, they are not accompanied with FRA-required, sight-distance numbers.

#### **Ohio Law**

Ohio Law states that a railroad: *... shall destroy or remove plants, trees, brush, or other obstructive vegetation upon its right-of-way at each intersection with a public road or highway, for a distance of six hundred feet or a reasonably safe distance from the roadway of such public road or highway as shall be determined by the public utilities commission.* (Revised Code 4955.36). The State has established procedures whereby complaints of excessive weeds and vegetation on railroad property can be made to PUCO. Following a complaint, the applicable railroad can remedy the situation; the complaint can be dismissed or investigated; a hearing can be held; and/or a remedy can be imposed by PUCO. While Ohio law is more explicit than federal law in regard to sight distance (it includes a standard of 600 feet), the FRA-required-for-safety, sight-distance figures FRA are not adopted. Furthermore, although seemingly illogical, there may be claims of preemption in regard to State authority over adequate sight distance in that the federal government addresses, although it does not adopt, sight-distance standards.

#### **Vegetation on Private Property**

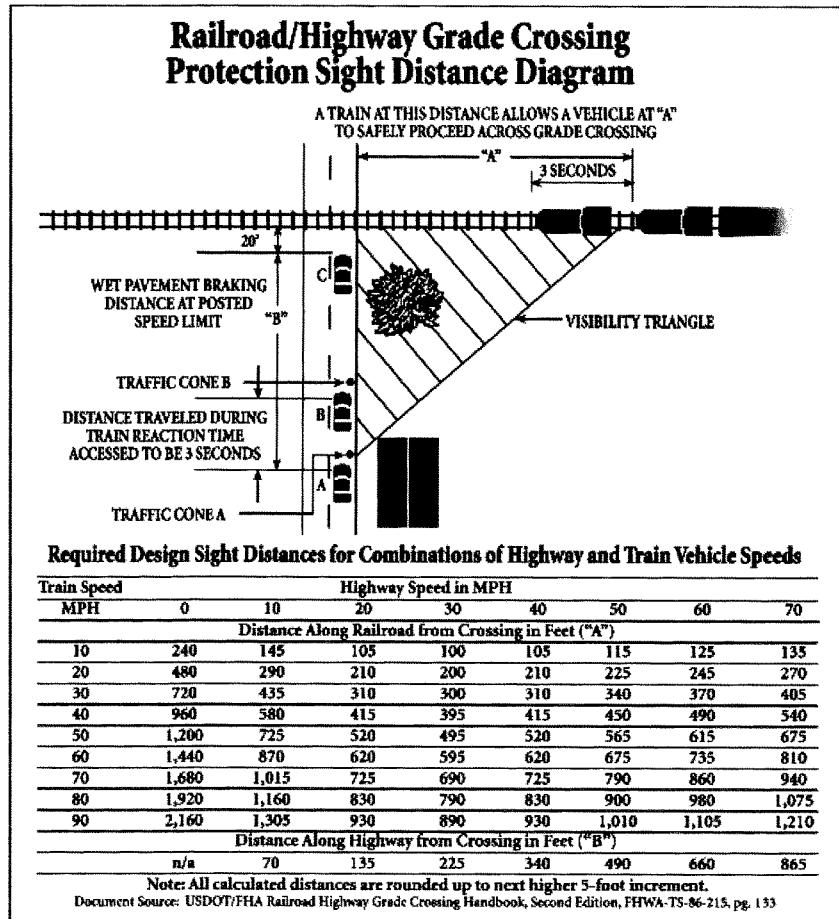
There are no laws that require private property owners to maintain vegetation at levels that permit ample visual views of approaching trains at railroad crossings. In fact, the position that private property owners have no obligation to remedy overgrown vegetation at railroad crossings has been confirmed in the courts. Contrary laws are unlikely to be enacted as they are thought to be in conflict with the rights of private land ownership.

#### **The Bottom Line**

Overgrown vegetation at railroad crossings presents a major problem in that current laws are limited as to their ability to prevent overgrown vegetation. Various solutions are possible. First, railroads could voluntarily maintain their rights-of-way to prevent overgrown vegetation at their crossings. Second, tort law could induce railroads to develop pro-active, vegetation-control plans at crossings, through substantial financial judgments against railroads whose overgrown vegetation contributed to an accident. (At least one major railroad has already adopted such a vegetation policy based on the determination that it is economical to do so.) Third, where overgrown vegetation exists on private property, unless an agreement is reached with the applicable private-property owner to maintain vegetation at acceptable levels, automated gates could be installed. Fourth, gates could be installed at all crossings where overgrown vegetation is expected

to be a chronic problem. Fifth, Federal legislation could be amended which would adopt the sight-distance figures recommended by FRA in its Handbook. And finally, Ohio law could be altered to supplant its 600-foot reference, with FRA-recommended sight-distance figures. In regard to these last two solutions, for the government to do less would be akin to recognizing the solution to a problem and doing nothing to implement it.

## Attachment #2, 2 of 2



Example: If a car and a train were both traveling 40 mph, a motorist stopped 340 feet from the crossing, should have a clear, unobstructed line of sight 415 feet down the tracks.

Dominant Voice on Rail Safety Echoes the Industry's Message  
By WALT BOGDANICH

Published: November 14, 2004

Judge Jack T. Marionneaux said the offer took him by surprise. Two years ago, while presiding over a state lawsuit involving a motorist killed at a Louisiana railroad crossing, Judge Marionneaux said he was among several people invited to ride on a train and learn about grade-crossing accidents.

"It was really a bit strange," Judge Marionneaux said in court proceedings. "I had never been called by a railroad to go take a ride until I got this case."

The train ride, staged for police officers and judges to demonstrate how drivers dart in front of trains, was part of a publicity campaign developed by a nonprofit rail-safety group called Operation Lifesaver. The group's message - which emphasizes the role of motorists, not the railroads, in causing crossing accidents - echoes the railroad industry's consistent courtroom defense. The invitation, the judge said, "offended me."

Judge Marionneaux declined the offer. He also vowed to empanel a grand jury if another such campaign was mounted during the trial.

Nor was he alone in worrying that Operation Lifesaver's message might taint the legal process. Since 2001, two other judges have taken action to stop the group from conducting publicity campaigns around the time of trials.

Operation Lifesaver is the nation's most influential rail-safety group, preaching its gospel of driver responsibility to judges, police officers, elected officials and the news media. No one disputes the value of its message - that motorists should pay attention at rail crossings - or the dedication of many of its volunteers. And its work is widely praised by police and community groups.

But documents show that the organization is tightly bound to the railroad industry, and critics, including many accident victims, say the group's message serves another agenda: to inoculate the railroads against liability in grade-crossing collisions.

Not only was Operation Lifesaver co-founded by a railroad; rail industry officials make up half the organization's national board and provide much of the financing for its state chapters. It also gets millions of dollars from the railroads' federal regulator, which is itself closely intertwined with the industry.

And even as Operation Lifesaver speaks out about changing drivers' behavior, it spends little time on a range of safety matters that are the responsibility of the railroads and is largely silent on the benefits of warning lights and gates, which many experts say are among the most effective of all safety devices.

In the view of its critics, Operation Lifesaver is another way the rail industry seeks to sidestep responsibility in grade-crossing accidents. This summer, The New York Times reported that railroads in some cases had destroyed or failed to keep important evidence in fatal grade-crossing cases and had failed to properly report hundreds of car-train collisions to federal authorities.

#### Blaming the Public?

Leila Osina said she was fired in 1995 as Operation Lifesaver's executive director after she objected to what she considered the group's pro-railroad slant. "The message was to blame the public for all railroad accidents and absolve the railroad from any responsibility," Ms. Osina said in a statement 2000 in connection with a federal court case in Arkansas involving a car-train accident.

Operation Lifesaver's position is that the police and judges should crack down on motorists who do not obey traffic safety laws at crossings, but it offers little criticism of railroads that fail to remove overgrown vegetation at crossings, or fail to fix warning signs and signals, or fail to make sure that trains properly sound their horns and obey the speed limit.

An internal document from before 1995 also shows that speakers were instructed not to use terms like "rough crossing," "dangerous crossing" or "speeding train." Those terms "carry a negative connotation" and detract from the group's safety message, the document states.

Operation Lifesaver says this document is no longer used.

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The current executive director, Gerri L. Hall, says her group is simply an educational organization with no hidden agenda. "Our education program isn't about who's at fault, it's about how a driver can take a role in safety," Ms. Hall said. "We want to empower them to make choices that are good. It isn't about placing blame."

Ms. Hall, who has led Operation Lifesaver since 1995, said that while some local volunteers had made unacceptable statements about the group's work in the past, she had worked to standardize its message. She said the group made safety presentations last year to about 1.3 million people, and she said that federal authorities say it has saved 11,000 lives since 1972. She also said Operation Lifesaver received "substantial" support from nonrailroad sources.

As for the comments made by Judge Maronneaux in Louisiana and the court actions to stop Operation Lifesaver from conducting its media campaigns, Ms. Hall said she was unaware of the events that led to them.

Vicky Moore, whose son was killed nine years ago at a rural Ohio crossing where at least six other people have died, says she believes Operation Lifesaver lets railroads off the hook.

"Everybody has a shared responsibility here, not just the driver," she said. "We do not feel that Operation Lifesaver represents the families or victims of this type of tragedy."

Ms. Moore and her husband, Dennis, try to do what Operation Lifesaver does not - with the money from their settlement with Conrail, they run an educational foundation that, among other things, helps finance the installation of lights and gates. They also erect billboards that offer another reason for grade-crossing collisions: "Bad Crossings Kill Good Drivers," one of their signs states.

Theirs is an issue that cuts angry and deep in the heart of rural and small-town America. On average, one person is killed every day at a railroad crossing. And while deaths have fallen sharply from a decade ago, there were 255 through August of this year, a 20 percent increase over the same period in 2003, according to the Federal Railroad Administration.

#### 'A Tremendous Success'

Operation Lifesaver was co-founded by Union Pacific Railroad in Idaho in 1972 and quickly spread to other states through independent chapters. By 1986 there were many state chapters and the national version of Operation Lifesaver was incorporated by the Association of American Railroads, an industry trade association; Amtrak; and the Railway Progress Institute, a rail equipment supply group.

Since Ms. Osina left the national group, its board has expanded to include more members from outside the rail industry. It now has 10 voting members - half of them from the industry.

"We know what a tremendous success Operation Lifesaver Inc. has been," said Allan Rutter last fall before he stepped down as chief of the Federal Railroad Administration, which regulates the industry. The agency backs his words with taxpayer money; it has contributed \$7 million since 1997. Two other agencies, the Federal Highway Administration and the Federal Transit Administration, have collectively kicked in a similar amount.

Even so, the Operation Lifesaver program pays scant attention to unsafe crossings.

According to minutes of a 1992 meeting of Operation Lifesaver's development council, the signal-workers union notified the group that "warning device malfunctions are a factor in driver behavior at railroad crossings" and that the police should be told of this. The minutes show that the recommendation was unanimously rejected. Ms. Hall of Operation Lifesaver said she knew nothing of the meeting because it happened before she arrived.

On the issue of lights and gates, Ms. Osina, the former executive director, said she came to believe that the railroads did not want them.

"The board of directors openly acknowledged an aversion to the installation of lights and gates because of the maintenance cost for those devices," Ms. Osina said in her 2000 court statement.

The government pays for the installation of lights and gates at crossings, but railroads must keep them working properly.

(Page 3 of 4)

Their value was underscored in 2001 when the Missouri Supreme Court upheld a verdict against Union Pacific after an accident at a grade crossing that did not have lights and gates. In that case, the court noted, a Union Pacific representative said lights and gates reduced the probability of accidents by as much as 90 percent.

Ms. Hall said Operation Lifesaver did not advocate more lights and gates at crossings because it is "beyond the scope of what Operation Lifesaver is trying to do." By taking a position on the issue, she said, "the next thing that would happen to us is we would spend all of our time in court, I suppose, or be dragged into discussions with Congress about lights and gates and who will pay for them."

Although lights and gates are in place in fewer than half the nation's rail crossings, Operation Lifesaver emphasizes driver attitudes, arguing that impatient motorists often drive around gated crossings.

#### Working With the Police

After a grade-crossing accident, Operation Lifesaver often offers its representatives as experts to be quoted in the local press. The group also tries to educate police officers through a program called Officer on the Train. Police officers, public officials and the news media are invited onboard a train with a camera mounted on the front of the engine. When motorists cross in front of the train, the police officers radio ahead to other officers waiting in cars nearby, who then issue tickets to the drivers. The news media is there to record what happens.

The resulting coverage conveys a message espoused by the railroads. During one such train ride in 1996, for example, a police officer was quoted by a St. Louis newspaper as saying, "People are still running the gates and winning big lawsuits."

Operation Lifesaver also reaches out to the police is on its Web site with 14 "tips for law enforcement officers" who might end up investigating a car-train collision. After tips on how to safely secure an accident scene, the first mention of a possible cause for the accident is No. 7: "Look for evidence of suicide."

An older Operation Lifesaver guide, no longer used, noted that "a significant number of grade crossing 'accidents' are cleverly disguised suicides." The guide further stated that "the lack of physical evidence should not rule out that probability."

Some drivers do commit suicide at grade crossings, though the exact number is not known. But some families of accident victims say railroads unfairly raise the specter of suicide as a way to escape responsibility for crashes.

In addition to police officers, Operation Lifesaver also focuses on judges with its message that reckless drivers are to blame for rail-crossing accidents. One way to reach them was outlined in a document titled "How to Gain the Attention of Judges," which suggested that the group's members "find out which judges are running for election and invite them to an interview to express their opinions."

Asked about the document, Operation Lifesaver said in a statement that a judge created it and distributed it at a national Operation Lifesaver conference in 2000. That judge, the statement said, believed other judges should know "about the importance of enforcing grade-crossing violations by drivers and railroad trespassing violations by pedestrians."

Judge Marionneaux of Louisiana said in October 2002 that Operation Lifesaver had crossed the line when it invited him to participate in Officer on the Train. "It looks like it's a simple invitation without any point," he said in court proceedings, noting that he was not the only judge invited to go along. "But what is the reason to ask a judge to go ride on a train?" The judge did not cite any evidence that the event was designed to influence his views or the jury's, but he said it made him feel uncomfortable nevertheless.

In another rail-crossing case, William R. Wilson Jr., a federal judge in Arkansas, tried in August 2001 to stop Operation Lifesaver from running its publicity campaign during the trial. Judge Wilson said he felt the order was necessary after a two-day regional event in which the news media and police officers were given train rides.

(Page 4 of 4)

"I'm sure that a lot of crossing accidents are primarily due, or solely due, to driver disregard, negligence, trying to beat the train or whatever," Judge Wilson said in court proceedings. But he also said some of the educational materials did not "seem balanced," failing to mention that railroads sometimes "don't blow the whistle or sometimes they speed or sometimes crossings are not repaired right or sometimes the railroad lets vegetation grow up."

James Johnson, a former grade-crossing safety coordinator for Southern Pacific Railroad - now part of Union Pacific - testified in 2000 in yet another grade-crossing case that on two occasions he helped arrange Officer on the Train programs to coincide with trials.

Elizabeth S. Hardy, a lawyer who represents accident victims, said that on one occasion she had just picked a jury in a grade-crossing case "and the very next morning" Operation Lifesaver's message was being heard "eight to 10 times a day on television, on the radio."

Ms. Hardy, who late last year obtained a court order to stop the group from running a media blitz during a trial, complained that the railroads used the news media to show how their employees "suffer grievously" because of accidents caused by "stupid" motorists.

A spokeswoman for the Association of American Railroads said it was "patently false" that the industry used Operation Lifesaver to further its own agenda. Ms. Hall, the group's executive director, agreed.

"These are good people, and they are being besmirched by innuendo," Ms. Hall said. "This is a good organization with big hearts." She said plaintiffs' lawyers were behind the criticism of her group because, with the number of rail-crossing deaths declining, "they are losing their base of operation." Operation Lifesaver, she added, wants to look at all factors involved in accidents, including dangerous crossings.

But Ms. Moore, the mother whose son was killed by a train, remains unconvinced. She asked to join Operation Lifesaver's board last year, but the board unanimously rejected her, saying the group did not wish to become involved in "advocacy." Why, she asked in a letter to Operation Lifesaver, is she called an advocate, when railroad officials on the board are not?

Ms. Moore says she never received an answer.

*Jenny Nordberg and Eric Koli contributed reporting for this article.*

## Attachment #4, 1 of 2



### GOVERNMENT-FUNDED GATE INSTALLATIONS: A RAILROAD PROFIT CENTER?

By: Dr. Harvey A. Levine, Director, Crossing to Safety®

With about \$160 million of federal funds allocated for the installation of upgraded safety devices at railroad grade crossings, and additional monies contributed by state governments, probably about \$180 million of public monies are used to finance gate installations in an average year. State agencies award sole-source contracts to railroads for gate installations, and based on my conversations with various distributors, I believe that railroad charges are rarely scrutinized and/or audited. Thus, one can logically wonder whether the installation of automated gates at grade crossings constitutes a railroad profit center. Based on my analysis of several recent railroad invoices, the answer appears to be in the affirmative.

The figures presented below summarize railroad charges for a gate installation:

1. Materials			
a. Direct	\$91,493		
b. Freight	<u>3,660</u>	\$95,153	
2. Labor			
a. Direct	10,129		
b. Indirect			
(1) Fringe benefits (48%)	4,862		
(2) Insurance (60%)	6,077		
(3) Travel, lodging, meals	<u>4,761</u>	25,829	
3. Outside Services			
a. Rental equipment	12,077		
b. Hookups, engineering, permits, etc.	<u>4,620</u>	16,697	
4. General & Administrative (overhead)			
a. 22.5% of Materials	20,586		
b. 22.5% of Direct Labor	<u>2,279</u>	22,865	
5. Fixed Fee (profit)		<u>16,054</u>	
	Total	\$176,598	

Questions can be raised about the legitimacy of the invoiced expenses in each category identified above, but some broad issues immediately come to the fore, particularly in that the work performed in this instance was subcontracted by the railroad to a so-called “third party.” In the first place, why is there a fixed fee of \$16,054 – interpreted by me as profit – when the work was contracted out, and more importantly, when government monies funded 100 percent of a safety device at a crossing that is half owned by the railroad? Second, why did the railroad charge an overhead (general & administrative) expense of \$22,865 when it didn’t actually experience these costs because of the gate installation? Neither did the subcontractor. In the case of a government subsidy such as full payment of a gate installation, the railroad should be compensated for its “out-of-pocket” costs and nothing more. Stated another way, the only expenses that should be recoverable to the railroad are the ones that would be “avoidable” if the automated gates were not installed. Profit is a reward to investors for risk taking. In the case of gate installations, railroad investors incur no financial risk.

Third, labor fringe charges equating to 48% of direct labor appear to be excessive in view of the historic relationship between railroad labor rates and fringe benefits – and in this particular case, especially in view of the fact that a railroad subcontractor does not have to contribute to railroad retirement (and its relatively high payment) as does a railroad. Fourth, the same question of excessiveness is applicable to the 60% insurance charge. It’s hard to believe that \$6,077 is spent for employee liability insurance because of two weeks worth of work in installing an automated gate. Fifth, why is the railroad -- or its subcontractor – renting equipment such as pick-up trucks and backhoes, when such equipment is commonly used for gate installations? Wouldn’t it be far less expensive to own dirt-moving equipment? And the two-week rentals are also highly questionable. Sixth, a review of other railroad charges such as those listed above, reveals that 80 man-hours of time are charged for a variety of railroad employees. Surely, each installation doesn’t take the same amount of time. Also, included in the direct labor charges is time for a bookkeeper and billing clerk. These are overhead expenses that would be incurred even without the gate installation. And seventh, the \$95,153 charges for materials may be excessive in view of the long history of purchased materials and potentially available used items. How much are the markups of the material suppliers? Are competitive bids taken? Are the charges audited? Where are the controls?

Public (tax-payer) funding of gate installations does not preclude railroads from expending their own monies on such ventures. But they do not – that is, unless such expenditures are required for an economic venture such as a merger with, or acquisition of, another railroad. In essence, with few exceptions, railroads allow the government to pay the full cost of installing gates. At a minimum, the appropriate costs in such cases are the railroads’ out-of-pocket (also known as “avoidable”) costs. Railroads do not encounter investment risk in these cases as they invest no capital. Therefore it is folly to allow them a return (profit) to something (investment) that is nowhere to be seen. It is equally folly to allow railroads to recover overhead charges that they also do not experience because of gate installations. And finally, it is folly not to audit railroad charges for gate installations. Billed railroad expenses should be reasonable, legitimate, and economical. Nothing less is in conflict with the public interest.

## Oversight Is Spotty on Rail-Crossing Safety Projects

By WALT BOGDANICH and JENNY NORDBERG

Published: February 18, 2005

When Missouri state auditors set out to learn if railroads were prudently spending government money to install warning signals at grade crossings, they found more than a few problems.

According to audit reports from two years ago, one railroad, Kansas City Southern, had submitted overcharges of nearly 100 percent, or almost \$60,000, on one project. Another, BNSF Railway, also had an overcharge of nearly 100 percent.

And that was not all. BNSF, formerly known as Burlington Northern and Santa Fe, overcharged to a lesser degree on more than a dozen other signal projects, records show.

Missouri officials should not have been surprised. In 2000, Missouri asked BNSF to repay \$670,000 in overcharges on 43 earlier signal projects, all financed mostly by the Federal Highway Administration. Another railroad had similar overcharges, state officials said.

When it comes to catching sizable overcharges in the federally financed lights-and-gates program, Missouri stands out. Other states audit only a few signal projects - or none - even though these construction contracts are almost always awarded to railroads without competitive bids, according to public records and government officials.

The result, rail safety advocates say, is that signals often cost more than they should, which means that fewer of these life-saving warning devices are installed.

Safety experts say warning lights and gates are a major reason why crossing deaths have declined in recent years, though they did jump in 2004. Even so, most of the nation's 150,000 rail crossings on public roads have no lights or gates. In all, nearly 900 people have died at crossings that lack lights or gates since 2000.

Just this week, separate fatal accidents occurred at two crossings with no lights or gates in Tangipahoa Parish in Louisiana; the first, on Sunday, killed one man and three children, while the second crash killed two men yesterday. But while up to 700 crossings in Louisiana need warning lights and gates, said Mark Lambert, a state transportation official, there is not enough federal money to pay for them.

Louisiana has questioned railroad billings, and last year, auditors there found possible overcharges of more than 10 percent, about \$1.1 million, though the actual recovery might drop after settlement discussions.

"If you are spending the public's money, you would rather see a competitive situation," said Steven L. Schooner, co-director of the Government Procurement Law Program at George Washington University Law School.

The Federal Highway Administration agrees, but only up to a point. When building a road, the agency calls competitive bidding "a basic fundamental principle of federal procurement law." But that does not hold for the lights-and-gates program, where federal highway officials have spent \$1.7 billion since 1973 to make grade crossings safer.

"Bidding or no bidding, post-performance auditing, or at least some level of oversight, is necessary to ensure proper stewardship of taxpayer funds," Mr. Schooner said.

A spokesman for the highway administration, Brian Keeter, said that to make sure states "use federal funds appropriately," they are required to report on the progress of crossing projects and whether they have helped to reduce accidents.

But in written responses to questions, he did not specifically answer how the government could ensure that those funds are used properly if many projects are not audited. Mr. Keeter also did not provide the percentage of projects that are audited.

Federal rules do not require states, which administer the lights-and-gates program, to seek competitive bids as long as railroads manage the projects. While states can seek bids from private contractors if they run the projects themselves, they prefer to let railroads handle the work, since they own the crossings and are obligated to maintain them.

"On the highway, we can do what we want," said Lamar McDavid, an auditor with the Alabama Transportation Department. "But we're on private property, so we have to do what they want." Keith Golden of the Georgia Transportation Department added, "We don't have the power to negotiate with them."

States said they do negotiate prices with railroads. In Tennessee, after a 17-year-old girl was killed at a rail crossing in 1997, the state told CSX to install gates there. The railroad said it would cost \$122,000, nearly three times what the state thought was fair, according to state records. CSX eventually agreed to do the work for half its original proposal. The upgrade was finished in 1999.

Today, a full set of lights and gates costs \$80,000 to \$200,000 or more, depending on the crossing, state transportation officials said.

The federal government does not require states to audit every project. "States perform the day-to-day oversight of this program and thus determine when or if audits occur," said Doug Hecox, a Federal Highway Administration spokesman.

The Association of American Railroads, a trade group, said railroads did not make a profit on lights and gates. And, the association added, "Taxpayers can be assured that they are getting the best price possible because states conduct audits."

But Ohio, for example, does no audits of signal projects at grade crossings, state officials said.

Officials in other states said they feared that some audits were becoming less reliable. Because one major railroad - Norfolk Southern - is moving toward a paperless work environment, verifying bills is becoming "nearly impossible," according to a joint audit in 2003 involving 10 states, including New York. The rail association said its members are not violating federal reimbursement rules.

Railroads said overcharges were simply unintentional mistakes, a statement not disputed by state auditors. Kansas City Southern, for example, said its overbillings were generally small and due to the complexity of different state contracts.

BNSF said Missouri's audit findings were the result of misunderstandings. And while the railroad did not always agree with the state's findings, BNSF said it reimbursed the state anyhow.

It is also true that two separate joint audits, representing 8 Eastern states in one group and 10 in another, found only minimal overcharges by CSX and Norfolk Southern. But these joint audits covered only a tiny percentage of projects, fewer than 10 projects in all from the participating states. And those reviews are not done every year, records show. CSX, for example, has not undergone a joint audit by the group of Eastern states since 2000, in part because auditors said they did not expect to find significant problems.

An official with the federal Department of Transportation's inspector general said he was unaware of any comprehensive investigation by his office of the federal lights-and-gates program. But when the inspector general followed up on a whistle-blower complaint in the 1990's, investigators found that CSX had knowingly padded its expenses. CSX agreed in 1995 to pay \$5.9 million to settle civil fraud accusations.

In addition to federal funds, state money is also used in signal programs. California, for example, pays railroads for maintaining lights and gates at crossings after they are installed. But when state officials checked these billings, they found that railroads had submitted expenses for maintaining signals at crossings that were closed, crossings with no warning signals, crossings with no rail service, and crossings claimed by more than one railroad. As a result, California officials rejected \$346,492 in 2003.

Illinois officials also use state money to pay railroads for upgrading rail crossings. But in a highly critical report in November 2003, the Illinois auditor general found that even though state transportation officials had said railroad bills "seemed unreasonably high," they still did not verify charges for materials, labor or personnel expenses.

Railroads, for example, submitted bills for trench-digging equipment that was rented for weeks - even months - longer than necessary, the report found. State officials, the report added, do "not assure the prescribed work is done, work is done on schedule or that expenditures for the project are appropriate." The projects sampled by the auditor general took nearly four years to complete.

## Highway Agency Disavows Claims by Rail Safety Group

By WALT BOGDANICH and JENNY NORDBERG

Published: January 23, 2005

For years, a national railroad safety group with ties to the rail industry has promoted itself with an impressive claim: its educational programs have saved thousands of lives by emphasizing the role of motorists, not trains, in preventing grade-crossing accidents.

"The Federal Highway Administration credits Operation Lifesaver with preventing 10,000 deaths and 40,000 injuries," Gerri L. Hall, the group's executive director, said in a statement submitted to Congress in 1998. In Congressional testimony, in interviews and on its Web page, Operation Lifesaver has cited the highway administration as the basis for the claim that its primary message - that drivers and pedestrians should pay closer attention at rail crossings - has helped save thousands of lives.

The highway administration, however, insists that it has said no such thing.

According to the agency, an estimated 11,000 deaths have been prevented not because of Operation Lifesaver but because of a federal program that poured billions of federal dollars into improving safety at rail crossings, including installing warning lights and gates. Operation Lifesaver has said little on the issue of lights and gates, which the railroads are required to keep in working order.

Late last year, The New York Times asked the highway agency to validate Operation Lifesaver's claim, which the safety group had provided to the newspaper for an article. The highway administration's spokesman, Brian C. Keeter, declined to be interviewed, but in a statement last week he said that the federal agency had asked Operation Lifesaver, a recipient of at least \$14 million in federal subsidies, to be more accurate in the future, and that the group had agreed "to clarify its role in highway-rail grade-crossing safety."

In its article on Operation Lifesaver, The Times reported that a former executive director of the group, Leila Osina, said she was fired in 1995 for protesting what she described as the group's pro-railroad slant. Operation Lifesaver encourages the police and judges to crack down on drivers who do not obey traffic safety laws at crossings, but the group rarely criticizes railroads when they fail to keep crossings safe.

Operation Lifesaver, a nonprofit association co-founded three decades ago by Union Pacific, has denied having a pro-railroad agenda. The group has placed more non-railroad people on its board since the mid-1990's, though 6 of the 10 voting members still represent the rail industry.

Asked to comment on the highway administration's statement, Ms. Hall, the group's executive director, said it "has always been our understanding" that the agency had credited Operation Lifesaver with being part of a broader effort to reduce fatalities at grade crossings.

Over the last decade, the highway administration has given the group at least \$7 million to support its work, which is widely praised by the police and community groups. But an agency spokesman said the highway administration had "made no internal estimates on the number of lives saved by Operation Lifesaver."

Ms. Hall said she only recently learned of the highway agency's objection, even though, she added, her group has been working with that agency for the last decade. The agency, she pointed out, publicly corrected the record only after The Times's inquiry.

Another agency, the Federal Railroad Administration, has also given Operation Lifesaver more than \$7 million since 1997. Both the railroad administration and highway administration said any future decisions about whether to give Operation Lifesaver money are up to Congress.

Ms. Hall of Operation Lifesaver said the group's claim that it has helped to save lives is also backed by a university study of highway grade-crossing fatalities. She said Operation Lifesaver "would never pretend" to be the sole reason for fewer deaths at crossings. The engineering and law enforcement communities have also helped to reduce fatal accidents, Ms. Hall added.

But Vicki Moore, who runs a small rail-safety group in Ohio that focuses more on dangerous crossings than driver behavior, said the highway administration's statement showed that Operation Lifesaver had not been telling the truth "to our government, legislators and anyone who would listen."

## Attachment #5 (2 of 6)

Table No. 1

## NUMBER OF GRADE-CROSSING ACCIDENTS AND CASUALTIES

Year	All Crossings				Public Crossings				Private Crossings			
	Accident	Death	Injury	Casualty	Accident	Death	Injury	Casualty	Accident	Death	Injury	Casualty
1973	12,129	917	3,860	4,777	11,408	898	3,736	4,554	718	29	124	159
1974	13,153	1,113	4,740	5,814	12,374	1,064	4,333	5,301	808	49	205	234
1975	13,412	992	4,863	5,815	12,594	944	4,646	5,590	817	48	217	263
1976	13,357	1,064	4,447	5,481	12,647	1,918	4,124	5,042	890	46	187	233
1977	12,759	883	4,378	5,261	11,777	834	4,172	5,000	982	49	206	233
1978	10,796	633	3,890	4,723	9,926	788	3,662	4,430	670	45	220	273
1979	8,461	728	3,283	4,061	6,698	697	3,121	3,818	703	31	172	203
1980	7,932	607	2,627	3,244	7,334	580	2,508	3,088	608	27	129	156
1981	7,303	575	2,013	2,986	6,691	542	2,467	3,009	614	33	156	189
1982	7,456	649	2,910	3,599	6,798	610	2,723	3,333	658	39	187	226
1983	7,073	582	2,487	3,289	6,497	537	2,348	3,105	576	45	179	224
1984	6,513	616	2,458	3,074	5,965	378	2,328	2,906	548	38	150	168
1985	6,426	624	2,429	3,053	5,861	398	2,313	2,911	535	36	118	142
1986	6,817	689	2,369	3,278	6,027	652	2,417	3,069	590	37	172	209
1987	6,326	601	2,364	3,469	5,990	577	2,483	3,440	546	44	181	229
1988	5,715	696	2,407	3,105	5,223	648	2,254	3,550	480	50	153	203
1989	5,258	664	2,094	2,703	4,861	565	1,923	2,488	525	43	171	214
1990	4,960	579	1,975	2,554	4,465	538	1,830	2,366	445	43	145	188
1991	4,892	636	1,837	2,463	4,437	574	1,744	2,318	455	42	133	155
1992	4,979	613	1,961	2,576	4,503	572	1,829	2,401	478	43	142	175
1993	4,633	579	1,894	2,473	4,153	534	1,734	2,278	480	35	140	165
1994	4,257	488	1,610	2,098	3,788	449	1,686	1,995	469	65	124	189
1995	3,863	467	1,340	2,001	3,414	419	1,700	2,148	451	42	120	212
1996	3,508	431	1,303	1,734	3,086	385	1,179	1,364	423	46	124	170
1997	3,489	402	1,396	1,793	3,090	363	1,262	1,625	399	39	134	173
1998	3,500	435	1,219	1,644	3,032	349	1,079	1,448	470	56	160	196
1999	3,207	421	1,157	1,578	2,843	380	1,038	1,424	394	33	119	154
2000	3,077	357	999	1,356	2,709	314	866	1,196	368	41	133	174
2001 (P)	3,028	332	1,028	1,340	2,599	301	913	1,214	349	31	115	146
2004 (P)	3,050	368	1,071	1,439	2,665	334	931	1,283	385	34	120	154

(P) Preliminary. There are incomplete inconsistencies in year 2003 data.

(T) Preliminary for all crossings. Estimated for public and private crossings based on year 2003 ratios.

Source: Federal Highway Administration, *Highway-Rail Crossing Accidents/Incidents and Injuries*, Bulletin, various years, and Federal Railroad Administration, *Railroad Safety Statistics*, various years (in FRA website in more recent years).

## Attachment #5 (3 of 6)

Table No. 2

## NUMBER OF GRADE CROSSINGS

Year	Total	Public	Private*	
			Total	At Grade
1975	361,452	219,161	142,291	
1976	361,420	219,082	142,338	
1977	340,048	218,334	141,694	
1978	357,721	217,068	140,653	
1979	356,340	216,123	140,217	
1980	355,145	215,428	139,717	
1981	353,089	213,907	139,182	
1982	345,337	209,341	135,796	
1983	338,350	205,339	133,011	
1984	330,986	200,730	130,256	
1985	325,179	197,383	127,936	
1986	316,033	192,454	123,579	
1987	307,062	189,643	121,419	
1988	301,039	181,953	119,086	
1989	296,192	178,627	117,565	
1990	282,839	176,572	116,267	
1991	289,319	174,084	115,425	
1992	280,383	170,622	113,076	109,463
1993	274,468	164,116		108,332
1994	362,750	166,035		106,713
1995	268,676	163,917		104,739
1996	265,721	162,426		103,295
1997	362,268	160,395		101,673
1998	259,240	158,590		100,650
1999	257,995	157,690		100,305
2000	254,759	153,974		98,783
2001	252,042	153,848		98,194
2002	251,243	152,453		97,790
2003 (P)	246,601	150,744		93,857
2004 (E)	243,000	149,000		94,000

\* Number of private at-grade crossings not available until 1992

(P) Preliminary.

(E) Estimated based on year 2002 to year 2003 declines.

Attachment #5 (4 of 6)  
 Table No. 3

**CASUALTIES PER PUBLIC GRADE CROSSING**

Year	Number of Casualties*	Number of Crossings	Casualties Per Crossing
1975	4,624	219,161	.0210
1976	3,601	219,082	.0233
1977	3,590	218,354	.0236
1978	6,042	217,068	.0278
1979	3,006	216,123	.0231
1980	4,450	215,428	.0206
1981	3,818	213,907	.0178
1982	3,088	209,541	.0147
1983	3,009	205,339	.0146
1984	3,233	200,730	.0166
1985	3,105	197,383	.0157
1986	2,906	192,454	.0150
1987	2,911	185,640	.0156
1988	3,069	181,953	.0168
1989	3,333	178,627	.0192
1990	3,550	176,572	.0201
1991	2,488	173,094	.0142
1992	2,364	170,622	.0138
1993	2,318	168,116	.0137
1994	2,401	166,035	.0144
1995	2,278	163,917	.0138
1996	1,935	162,426	.0119
1997	2,149	160,395	.0133
1998	1,564	158,390	.0096
1999	1,625	157,690	.0103
2000	1,448	155,974	.0092
2001	1,424	153,448	.0092
2002	1,196	152,453	.0078
2003 (P)	1,214	150,744	.0080
2004 (E)	1,325	149,000	.0088

\* Deaths plus injuries.

(P) Preliminary.

(E) Preliminary number of casualties. Number of crossings estimated based on decline from year 2002 to year 2003.

Source: Federal Highway Administration, Highway-Rail Crossing Accident/Incident and Inventory Bulletin, various years, and Federal Railroad Administration, Railroad Safety Statistics, various years (on FRA website in more recent years).

## Attachment #5 (5 of 6)

Table No. 4

## CASUALTIES PER PRIVATE GRADE CROSSING

Year	Number of Casualties <sup>a</sup>	Number of Crossings	Casualties Per Crossing
1975	153	142,291	.0010
1976	234	142,338	.0017
1977	265	141,694	.0019
1978	230	140,653	.0016
1979	255	140,217	.0018
1980	273	139,717	.0019
1981	203	139,182	.0014
1982	156	135,796	.0011
1983	189	133,911	.0014
1984	126	130,256	.0009
1985	224	127,936	.0017
1986	168	125,579	.0013
1987	142	121,419	.0011
1988	209	119,966	.0017
1989	229	117,543	.0019
1990	203	116,267	.0017
1991	214	115,423	.0018
1992	188	109,963	.0017
1993	133	101,352	.0012
1994	175	106,715	.0016
1995	193	104,799	.0018
1996	189	103,295	.0018
1997	212	101,873	.0020
1998	179	100,650	.0017
1999	171	100,303	.0017
2000	196	96,796	.0019
2001	154	96,194	.0015
2002	174	97,790	.0017
2003 (P)	146	93,857	.0015
2004	154	94,000	.0016

<sup>a</sup> Deaths plus injuries.

(P) Preliminary.

(P) Preliminary number of casualties. Number of crossings estimated based on decline from year 2002 to year 2003.

Source: Federal Highway Administration, *Highway-Rail Crossing Accident/Incidents and Inventory Bulletin*, various years, and Federal Railroad Administration, *Railroad Safety Statistics*, various years (on FRA website in more recent years).

## Attachment #5 (6 of 6)

Table No. 5

## GATE INSTALLATIONS AT PUBLIC GRADE CROSSINGS

Year	Number of Public Crossings	Number of Automated Gates	Percentage of Gates in Total
1975 (E)	219,161	12,300	5.6%
1976 (E)	219,062	13,100	6.0
1977 (E)	218,354	13,900	6.4
1978 (E)	217,068	14,700	6.8
1979 (E)	216,123	15,500	7.1
1980	215,428	16,291	7.6
1981	213,907	16,899	7.9
1982	209,541	18,429	8.8
1983	205,339	19,473	9.5
1984	200,730	20,136	10.0
1985	197,383	21,129	10.7
1986	192,454	22,066	11.3
1987	185,643	23,677	12.8
1988	181,953	24,633	13.3
1989	178,627	25,377	14.2
1990	176,372	26,194	14.8
1991	174,094	26,787	15.4
1992	170,622	27,507	16.1
1993	168,116	28,139	16.7
1994	166,033	29,050	17.5
1995	163,917	29,912	18.2
1996	162,426	30,813	19.0
1997	160,393	31,896	19.8
1998	158,590	32,406	20.4
1999	157,690	33,235	21.1
2000	155,974	34,396	22.0
2001	153,848	35,422	23.0
2002	152,453	36,403	23.9
2003 (P)	150,744	37,100	24.6
2004 (P)	149,000	37,900	25.4

(E) Estimated based on averages in ensuing years.

(P) Preliminary estimates based on averages in prior years.

Source: Federal Highway Administration, Highway-Rail Crossing Accident/Incident and Inventory Bulletin, various years, and Federal Railroad Administration, Railroad Safety Statistics, various years (on FRA website for more recent years).



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International Secretary-Treasurer

July 21, 2005

**U.S. HOUSE OF REPRESENTATIVES  
COMMITTEE ON TRANSPORTATION and INFRASTRUCTURE  
SUBCOMMITTEE ON RAILROADS**

**HEARING ON RAILROAD GRADE CROSSING SAFETY ISSUES**

**TESTIMONY OF W. DAN PICKETT  
INTERNATIONAL PRESIDENT  
BROTHERHOOD OF RAILROAD SIGNALMEN**

Good Morning. Mr. Chairman and members of the Committee. It is an honor for me to testify before this committee again in order to address Railroad Grade Crossing Safety Issues, a subject of great concern to this country and to all employees of the nation's railroads.

My name is Dan Pickett, and I am the International President for the Brotherhood of Railroad Signalmen. The Brotherhood of Railroad Signalmen ("BRS"), a labor organization with headquarters at 917 Shenandoah Shores Road, Front Royal, Virginia,

22630-6418, submits the following comments concerning railroad grade crossing safety issues.

The BRS, founded in 1901, represents approximately 9,000 members working for railroads across the United States and Canada. Signalmen install, maintain and repair the signal systems that railroads utilize to direct train movements. Signalmen also install and maintain the grade crossing signal systems used at highway-railroad intersections, which play a vital role in ensuring the safety of highway travelers. Throughout our entire existence, the BRS has dedicated itself to making the railroad workplace safer, not just for rail workers, but also for the public at large.

**Highway Grade Crossing Systems:**

The nation's highway grade crossings offer one of the most serious public safety hazards on today's railroad system. Crossing accidents represent, by far, the greatest source of fatal accidents in the railroad industry. Based on information from the FRA website from 2003, the past decade has seen a yearly average of 5,866 crossing accidents resulting in an average of 2,326 injuries and 643 fatalities.

Approximately one-third of all highway-rail grade crossings have some type of active warning devices, leaving nearly two-thirds of our nation's highway-rail grade crossings with no active warning devices installed.

Both train and highway traffic has increased dramatically over the past decade. Since 1985, Class 1 train miles increased 27 percent, while no less than five new commuter rail systems began operation.

Resources such as Section 130 Federal funds are needed to install and upgrade these active highway-rail grade crossing warning systems. It is unfortunate that the

appropriations used to fund this safety program have been reduced. Obviously, funding for Rail Highway Crossing Safety Programs such as Section 130 need to be increased so as to provide adequate warning devices at all public crossings. It is an excellent program and should be continued.

Before any discussion of Highway Rail Grade Crossing Safety, it should be noted that the rail industry is moving more freight with less employees than at any time in the history of railroading. This is a critical point that must be acknowledged. Through mergers and railroad management's never-ending quest to eliminate workers, railroad staffing levels are at an all time low and continue to drop. Those railroad employees that are left are working longer hours for many days at a time. A 12 to 16-hour day is not unusual for a railroad worker and in many cases it is the norm. Railroads are abusing the very asset that is their most important resource that secures their property day in and day out.

When discussing highway rail grade crossing safety, it is important to understand the major malfunctions of these systems: false activations and activation failures. *False activation* means the activation of a highway-rail grade crossing warning system caused by a condition that requires correction or repair of the grade crossing warning system. (This failure indicates to the motorist that it is not safe to cross the railroad tracks when, in fact, it is safe to do so.) *Activation failure* means the failure of an active highway-rail grade crossing warning system to indicate the approach of a train at least 20 seconds prior to the train's arrival at the crossing, or to indicate the presence of a train occupying the crossing, unless the crossing is provided with an alternative means of active warning to highway users of approaching trains. (This failure indicates to the motorist that it is safe

to proceed across the railroad tracks when, in fact, it is not safe to do so.) Activation failures are the more serious of the two.

#### **Activation Failures Concern the FRA and BRS**

Following three highway-rail grade crossing warning device activation failures this year, the FRA and BRS have been trying to increase the awareness of possible shortcomings of some crossing warning systems and training. The FRA has identified three different issues on crossing warning device safety: manual cut-outs, fouling circuits, and crossing design and testing integrity. Ensuring that crossing warning devices function properly and provide adequate warning to the traveling public is one of the most important jobs of Signalmen.

Design deficiencies and omissions are of particular concern, and BRS members are more likely than any one else to discover these types of problems before there is an accident or incident. Too often, design deficiencies and omissions do not become apparent until after an accident or incident. On extremely rare occasions, a poorly designed crossing warning system may fail to warn motorists of an approaching train. Another example of a poor design, and much more common, is a crossing warning system that activates unnecessarily. Warning systems that activate routinely without a train movement over the crossing, or false activation, cause the crossing warning device to lose credibility with the traveling public. This, in turn, develops a situation where drivers and pedestrians often ignore warnings, credible or not.

A properly designed system can eliminate the need to use manual cut-outs and the problems associated with fouling circuits in close proximity to a highway-rail grade

crossing. Often a poorly designed system is the result of legacy technology. Numerous crossing warning systems across the country still use equipment based on relay logic that is rooted in outdated and obsolete technology. Many modern-day systems are basically computers that provide inbound and outbound motion detection as well as train prediction technology using speed, acceleration, and distance algorithms.

Throughout the history of highway rail grade crossing signal systems there have always been changes in technology to provide protection to the traveling public. No more so than today. DC relay grade crossing signal systems have been in place for over 100 years and are still in service across much of the country. The introduction of computers and solid-state equipment has improved many aspects of how we detect the presence of trains and warn the traveling public. Signalmen today not only have to learn and know the systems of the past but they must also acquire the knowledge that allows them to work on the new systems, which are constantly in a state of flux due to the new revisions and changes to the software contained in the solid-state systems.

It is important to note that both the "old" technology and the "new" systems protect the traveling public with a high degree of accuracy and are very safe. However both systems have their pluses and minuses, and neither is 100 percent perfect.

#### **Reduction of Signal Personnel**

In the Brotherhood of Railroad Signalmen we have seen a steady decline in membership and as a matter of fact over the last five years, the railroads have cut over 12 percent of the signal jobs. Railroad hiring practices are not even keeping up with normal

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attrition, let alone preparing the wave of signal employees who will be retiring over the next 10-year period. In many cases, when a signal employee retires the railroads decide to abolish that job, divide the territory, and increase the adjoining maintenance territories by equal amounts. The amount of work has not declined only the amount of people that are left to perform that work. The decline in signal jobs has a direct correlation to safety. Fewer signal maintainers, the additional responsibility and longer hours make for dangerous conditions.

To further illustrate this point, during the past 10 years there has been a change on how signal jobs are filled. There are two types of signal jobs: construction and maintenance. Construction jobs consist of multiple Signalmen who travel across the railroad property performing various construction tasks. The upside of these jobs are they are not subject to call, and they work with other individuals. The downside is that you are away from your family the majority of your time on those jobs. Maintenance jobs have a specific territory with specific responsibilities. The main positive of maintenance jobs is that you usually get to sleep in your own bed every night. However, there are many negatives to maintenance jobs. Signal Maintainers are subject to 24-hour call, usually work alone, and have a multitude of responsibilities concerning compliance with a plethora of federal regulations. Throughout the history of the BRS, the upside of being able to go home to your family every night outweighed the negatives of maintenance jobs. It was not uncommon for a new hire to work 10 or 20 years in a construction job before you could secure a maintenance job. In general you had the most experienced Signalmen on the most difficult jobs and the least experienced Signalmen on construction jobs where they were surrounded by other workers and received critical guidance during the start of their careers. In the past 10 years we have seen a shift of that old paradigm. Due to the reductions in overall staffing levels, which

brought lengthened territories and increased responsibilities, the more experienced signalmen are opting to work in construction and the younger least experienced Signalmen are being forced on to the most trying or difficult jobs. The less experience you have the greater the possibility of making a mistake because you do not have the institutional knowledge to draw on to aid you in emergency situations.

In the past, if anyone wanted to work on anything that affected the normal function of the highway grade crossing signal systems, signal personnel would be dispatched to establish the protection of the public and railroad employees at the crossings affected; they would stay there to ensure that conditions did not change that affected the safety of the public and the employees; and as the work was completed, signal employees would test the highway grade crossing signal systems to ensure that they functioned properly as they were restored to service.

Staffing levels have gotten so low, many railroads are trying to institute policies or procedures that permit non-signal personnel to place shunts down on tracks or jumpers around track work to supercede the intended functioning of the highway grade crossing signal systems.

Railroads have tried to implement superficial "training" of non-signal personnel to place a shunt on the track or a jumper around the rail where they are working to supercede the intended functioning of the highway rail grade crossing signal systems. This type of "training" is not the same as having a person properly trained to understand the implications of his actions when a shunt or jumper has been placed on the track. This is a critical distinction. It is important to know if the system functions as intended over the area where the non-signal employees have performed their work.

It is imperative that the FRA Grade Crossing Signal System Safety Regulations are complied with in every instance when non-signal personnel utilize a shunt or jumper when performing work on the track. Signal Maintainers are responsible for the safety of the traveling public at highway rail grade crossings.

It makes no sense in this time of heightened security and increased awareness for highway rail grade crossing safety to use unqualified personnel to install wires and make decisions concerning crossing warning signal system safety that they are neither trained for nor understand the implications of all of their actions.

The inability to perform adequate testing and the failure to comply with minimum federal regulations have contributed, if not caused, many recent railroad accidents. In their never ending zeal to focus on the financial bottom line, railroads have allowed staffing levels to fall below the minimum needed to perform basic safety functions.

**Training and Education:**

When ensuring safety at highway rail grade crossings, training and education is another key preventive measure that needs to be considered. As cited in the examples earlier, less experienced signal employees are working some of the most difficult and demanding jobs. In most cases, the training period for an Assistant Signalman is two years of on-the-job training coupled with eight weeks of training, comprised of two-week intervals every six months. It takes approximately two years to graduate to the class of Signalman.

The railroads are utilizing signal employees who have not completed the minimum two-year training required to achieve the class of Signalman. Due to the technological advances in highway rail grade crossing signal systems, advanced training is also necessary

to stay abreast of the changes in the field. The BRS has had an Advanced Training Agreement with the Class I railroads in effect for over 10 years. The reason the Advanced Training Agreement was negotiated at the national level was to ensure that signal employees would continue to improve the skills of the professional men and women that install and maintain safety systems for the rail industry. This is an area that will improve safety. The BRS continues to work to implement training provisions, which were agreed to by the industry – but to date have not been implemented on many of our nation's railroads.

**Four Quadrant Gates:**

Any discussion of highway rail grade crossing safety would not be complete without addressing the utilization of four-quadrant gates. The BRS has recommended that four quadrant gates be implemented at crossings in the United States to prevent accidents and reduce the severity of accidents that do occur. We have made this recommendation to the National Transportation Safety Board (NTSB), the Federal Railroad Administration (FRA) and the Department of Transportation (DOT). The BRS recommends the installation of an active grade crossing warning device, which incorporates a four quadrant gate arrangement. Four quadrant gates can be operated by the same control systems that are used to operate two gates.

The BRS believes that four quadrant gates offer an immediate, near term solution to the problem of providing grade crossing safety on all rail lines. By "sealing" the crossing, they provide a safe yet effective barrier across all possible lanes of highway travel. Four-quadrant gates are extremely effective in keeping vehicles off of highway-rail crossings. Studies have shown that the operators of cars and trucks are reluctant to go through a gate and damage their vehicles.

Four-quadrant gates differ from conventional gate-protected crossings in that the four-quadrant gate places a physical barrier across all lanes of traffic; thus, both the traffic lanes entering the crossing as well as the traffic lanes exiting the crossing are blocked by the gates. This eliminates the problem of impatient drivers attempting to drive around the lowered gates, a problem that frequently occurs with conventional two-quadrant gate systems.

Installation and maintenance costs of four-quadrant gates are just a fraction more than the costs associated with conventional two-quadrant gate systems. The only modification required is the installation of two additional gate mechanisms and a timing device that would allow vehicles to exit the crossing before lowering the gates across the traffic exit lanes.

In recent years the North Carolina Department of Transportation (NCDOT) and Norfolk Southern (NS) embarked in a test program called the "Sealed Corridor" project. NCDOT has reported that the four quadrant gates reduced vehicular crossing violations by 86 percent. This same study showed that when using four quadrant gates in conjunction with median barriers, it reduced vehicular crossing violations by 98 percent.

Much is made about the issue of "trapping" an errant motorist on the crossing between the entry and exit gates. A representative of NCDOT stated that its research, "has shown very few cases of trapping. We have found that such violations have been committed by aggressive drivers that make up a small portion of the traveling public. One interesting characteristic of these aggressive drivers is their ability to 'take care of themselves' and stay out of harms way. Trapping is a minor concern, considering the incidents and fatalities that occurred prior to the installation of four-quadrant gates." If

further research shows that "trapping" is a problem, motor vehicle detection systems could be installed within the crossing to eliminate this problem.

Because of the inherent safety value, the Brotherhood of Railroad Signalmen believes that four-quadrant gates should be considered as a minimum standard for all current rail projects where grade crossing warning systems are installed.

The cost of installing four-quadrant gates at a passive crossing (where there is nothing more than cross bucks) is approximately \$150,000.

The safety benefits that could derive from adopting four-quadrant gates as a standard in this country would be tremendous. While crossing safety has been improved over the last five years, the time has come to take another step forward and improve grade crossing safety to the next level.

**Nationwide Telephone Notification System:**

The incorporation of a nationwide telephone notification system would greatly improve safety for our nation's grade crossing signal systems. The BRS has long recommended that a nationwide telephone reporting system such as a 1-800 system, be developed to allow members of the public to report crossing signal malfunctions. The FRA has made this a recommendation; it is not presently required by regulation. As such, while many Class I railroads have voluntarily implemented some type of 1-800 notification system, most Class II, Class III, and short line railroads have not.

We need to provide funding for the infrastructure to ensure that these systems are implemented and that we can therefore reap the much needed safety benefits.

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**Conclusion**

There is much to accomplish to make the nation's highway rail grade crossing safer for communities, the traveling public and for the employees. By focusing on improved infrastructure, proper staffing, and adequate training improved highway rail grade crossing can become a reality. Experience also teaches us that it is Congress that must provide the leadership to make safety a reality. I hope we can work together to see that improved safety practices become a reality.

On behalf of rail labor, I appreciate this opportunity to testify before the Committee. At this time I would be more than pleased to answer any questions.

Respectfully submitted,



W. Dan Pickett  
International President



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**Testimony of Mark V. Rosenker, Acting Chairman  
 National Transportation Safety Board  
 before the  
 U.S. House of Representatives  
 Committee on Transportation and Infrastructure  
 Subcommittee on Railroads  
 2167 Rayburn House Office Building  
 July 21, 2005, 10:00 AM**

Good morning, Chairman LaTourette and Members of the Subcommittee. Thank you for the opportunity to testify before you today on behalf of the National Transportation Safety Board (NTSB) on railroad grade crossing safety issues.

Grade crossing accidents are tragic events and we appreciate the serious attention that this Subcommittee is devoting to this important safety issue. I appreciate the opportunity to discuss the Safety Board's findings on train whistle audibility and passive grade crossing safety, and to briefly update you on the positive train control safety issue.

**Train Whistle Audibility**

The NTSB has long been interested in the adequacy of a train's audible warning system to alert motorists to the train's presence at grade crossings. We have examined this issue in a variety of accidents and note that while train horns can be effective, they can also fail to communicate the intended warning.

The sound of a train horn is effective as a warning only if the driver recognizes it as a train horn and takes appropriate action. This recognition is affected by the noise levels inside the vehicle (defrosters, air conditioners, wipers, radios, etc.). It can also be affected by soundproofing designed to cut down on engine, transmission, road and exterior traffic noise. The impaired hearing of the vehicle operator can also worsen the issue.

We first voiced our concern 37 years ago in a 1968 accident report involving nine fatalities in a station wagon at a grade crossing in Sacramento, California. The Safety Board concluded that the audible warning system was "spotty and defective" and recommended that the Federal Highway Administration study whether train horns and other external audible warning devices could be heard inside motor vehicles.

In 1986, the Safety Board conducted a study of passenger/commuter train and motor vehicle collisions at grade crossings and found that in 27 of the 75 incidents investigated, the occupants of the automobiles, pickup trucks, heavy trucks and other vehicles could not hear the audible warning system of the train, indicating that this audible warning system was inadequate as a primary warning system. In that study, the Safety Board concluded that train horns should be improved to better address the audibility concern.

The NTSB has been particularly concerned with the potential for grade crossing accidents involving school buses and the sound dampening characteristics of such vehicles. We have investigated two school bus accidents of special note—one in Fox River Grove, Illinois (October 25, 1995), and another in Conasauga, Tennessee (March 28, 2000). Audibility tests conducted in conjunction with these two accidents helped frame the nature of the problem. Research has shown that detecting a sound will not lead to appropriate action unless the sound is identified or has reached the alerting level. If a sound is to be identified, the warning signal must be 3 to 8 decibels (dB) above the threshold of detection; if a sound is to reach the alerting level, the warning signal must be approximately 10 decibels above the ambient noise.

In the Fox River Grove accident, our tests indicated that the train was only about 100 feet or 1.1 seconds from impact when the train horn sound exceeded the ambient noise levels at the driver's seat by 3 to 5 dB. In the Conasauga accident, the Safety Board concluded that the driver had difficulty detecting the train horn at all, and was probably unaware of the presence of the train. In both accidents, the train horns functioned properly and were sounded well in advance of the crossings and up to the crossings. In each case, the doors and windows of the buses were closed, radios were playing and the bus ceilings were at least partly covered with sound attenuating panels. The panels are capable of reducing sound as much as 25 dB in a bus when compared to a bus without attenuating panels.

For school buses at least, the states generally mandate concerted driver efforts to hear the horns of oncoming trains by requiring doors and windows to be opened and radios turned off. When such efforts are made, train horns can be heard. Since automobile drivers are unlikely to make such efforts, the effectiveness of a train horn as a warning device for them is problematic.

To address this point, the Safety Board conducted a study in July 1998 on safety at passive grade crossings. As a part of this study, the Safety Board tested the audibility of a train's horn within 13 passenger and emergency vehicles representing the current generation of highway vehicles. The vehicles included truck tractors, a school bus, a motor coach, a fire engine, an ambulance, pickup trucks and passenger cars. The tests used a three-chime horn mounted on a locomotive that was 100 feet from the test vehicles. At this distance, the sound of the horn, when measured outside the test vehicles, was 96 dB.

The Safety Board also tested the audibility of the train horn within vehicles when the windows were closed and the engines were idling. The sound of the train horn ranged from 25 dB above to 2 dB below the ambient sound level. In 5 of the 13 vehicles tested, the sound of the horn was not 10 dB above the level of the ambient noise, thus not loud enough to alert the drivers.

Further, when the fans were running on these vehicles with the windows closed and the engines idling, the horn's sound ranged from 8 dB above to 11 dB below the level of ambient sound. The horn was not audible at all in seven of the test vehicles; and in all the other vehicles, the sound of the horn was less than 10 dB above the level of the ambient sound. Nevertheless, the train horn is an important part of grade crossing safety; it should be sounded unless other actions are taken that act as an effective substitute at crossings.

In an effort to find such effective substitutes, the Safety Board issued a recommendation in its 1998 study to the U.S. Department of Transportation (DOT) to "develop and implement a field test program for in-vehicle safety and advisory warning systems, variable message signs, and other active devices; then ensure that the private entities who are developing advanced technology applications modify those applications as appropriate for use at passive grade crossings. Following the modifications, take action to implement use of the advanced technology applications" (Safety Recommendation I-98-1).

In the Safety Board's opinion, the technologies described in the recommendation, particularly in-vehicle warning systems, can help enhance safety at passive grade crossings. Such in-vehicle warning systems are a potential solution to the audibility problem that drivers encounter.

An in-vehicle warning system receives information about an approaching train either from the train itself or through the infrastructure and provides an auditory and visual warning inside the vehicle to the driver. The U.S. DOT has sponsored testing of several intelligent transportation systems (ITS) projects to improve safety at grade crossing. This testing has included projects in six states (Minnesota, New York, Illinois, Maryland, California and Texas) involving in-vehicle safety and/or advisory warning systems. Work is ongoing and our safety recommendation (I-98-1) is classified "Open--Acceptable Response." The potential for ITS improvements in grade crossing safety is promising. We have seen the carnage associated with accidents, especially school bus accidents. Had the Fox River Grove and Conasauga school buses been equipped with in-vehicle warning systems, both accidents may have been prevented and the lives of 10 children saved.

#### **Passive Grade Crossings**

The Safety Board's 1998 safety study on passive grade crossings made a number of recommendations to improve safety on the almost 97,000 passive grade crossings in the United States. When the study was made, there were approximately 4,000 accidents

at grade crossings, of which more than half occurred at passive grade crossings even though there was generally less highway traffic at these passive crossings. Those numbers have improved somewhat since the study was done, but the accidents and fatalities still occur at unacceptable levels.

The cost to eliminate or upgrade passive grade crossings is very high. According to the General Accountability Office, the average cost of adding lights and gates in 1995 was \$150,000 per grade crossing, making the total cost to upgrade the almost 97,000 passive crossings on public roadways more than \$14 billion. However, even expensive gates and lights do not completely eliminate the hazards at crossings. The ultimate solution from a safety standpoint would be the construction of bridges or underpasses that eliminate grade crossings which can cost \$3 million per crossing (in 1995 dollars).

Therefore, because of the large number of passive grade crossings, the high percentage of fatalities that occur at passive grade crossings and the cost to eliminate or upgrade passive grade crossings, the Safety Board investigated 60 grade crossing accidents to identify some of the common causes for accidents at passive grade crossings and to identify less costly remedies to improve safety at passive crossings.

In conjunction with this study, the Safety Board convened a 2-day public forum in Jacksonville, Florida, in May 1997 to gather information about issues affecting safety at passive grade crossings. Witnesses included experts from the railroad industry; law enforcement; research groups; Operation Lifesaver; and Federal, State and local government agencies. In addition, representatives from Canada and Italy discussed passive grade crossing issues and experiences in their countries.

Based on the results of the Safety Board's accident investigations and the information gathered at the public forum, the Board identified and made recommendations on the adequacy of existing warning systems to alert the driver to the presence of a passive crossing and an oncoming train; roadway and track conditions that affect a driver's ability to detect the presence of an oncoming train; behavioral factors that affect a driver's ability to detect the presence of an oncoming train; the adequacy of existing driver education material regarding the dangers of passive grade crossings and driver actions required; the need for a systematic and uniform approach to passive grade crossing safety; and the need for improved signage at private passive crossings.

Specifically the Board recommended that the U.S. DOT fund and the States install STOP and STOP AHEAD signs at passive grade crossings. This recommendation was issued as an intermediate measure, recognizing the cost of safer solutions that included grade separation and/or the installation of active grade crossing warning devices. The Board also recognized that in some cases an engineering analysis might be necessary to determine if a stop sign would reduce the level of safety.

By placing a stop sign at a passive crossing, a clear, unambiguous message is sent to the driver so that the driver knows both where the crossing is and what action must be

taken. The actions required by the stop sign are well understood by drivers and drivers stopped at a crossing have more time in which to detect an approaching train.

Additional studies support the Board's conclusion that the traditional CROSSBUCK sign at passive grade crossings is inadequate. For example, a 1993 study conducted at Federal Highway Administration's Turner-Fairbanks Highway Research Center (FHWA-RD-93-153) revealed that the CROSSBUCK sign's familiar "X" shape was one of the most widely recognized traffic control sign shapes in the United States. However, to the vast majority of road users it means the presence of a highway-rail crossing but it does not mean that they should yield the right of way to an approaching train. In other words, the CROSSBUCK sign fails to convey a clear, concise, behavior-directing message to the road user. The legend "RAILROAD CROSSING" explains what it is and where it is, but fails to adequately convey to the road user what they are supposed to do with that message.

A report by a U.S. DOT Technical Working Group issued in 2002, *Guidance on Traffic Control Devices at Highway-Rail Grade Crossings*, further underscored the need "...to convey a clear, concise, and easily understood message to the driver...[to] facilitate education and enforcement" at passive highway-rail crossings.

In response to the Board's safety recommendation, two organizations have come up with a compromise solution, which combines the CROSSBUCK sign with either a STOP or a YIELD sign.

The National Cooperative Highway Research Program issued Report number 470, *Traffic-Control Devices for Passive Railroad-Highway Grade Crossings*, in 2002 that recommends either a STOP or YIELD sign be displayed in conjunction with the CROSSBUCK sign, preferably on the same signpost, at all passive public highway-rail grade crossings. The National Cooperative Highway Research Program is administered by the Transportation Research Board and conducts research in acute problem areas that affect highway planning, design, construction, operation, and maintenance nationwide.

More importantly, this compromise has been adopted by the National Committee on Uniform Traffic Control Devices (National Committee). This group maintains the Manual on Uniform Traffic Control Devices (MUTCD) published by FHWA. The MUTCD is the publication used by all traffic control professionals that specifies the use of all traffic control devices in the U.S. The National Committee has recommended that the MUTCD be revised to require the use of the combination of the CROSSBUCK and a YIELD or a STOP sign at all passive grade crossings. If adopted by FHWA, this guidance will be incorporated into the next publication of the MUTCD in 2008. A draft of this guidance is being circulated and FHWA is considering issuing interim guidance on this issue to the States in order to implement this change before the 2008 publication date.

The STOP sign with the CROSSBUCK sign would be used where a traffic engineering study showed a need for all vehicles to stop due to sight distance restrictions or other characteristics of the crossing and the roadway approach to the crossing.

This is a positive step and I look forward to seeing the final guidance put forth by FHWA.

#### **Positive Train Control**

Finally, I wish to thank the Chairman and the Subcommittee for its interest in positive train control and for holding a hearing on this important safety issue earlier this year (April 28, 2005). The development and implementation of positive train control systems for main line tracks, especially where commuter and intercity passenger railroads operate, continues to be on the Safety Board's list of Most Wanted Transportation Safety Improvements (Safety Recommendation R-01-6).

Last week (July 10, 2005), the Safety Board launched a team to investigate the cause of a head-on collision between two Canadian National Railway Company freight trains in Anding, Mississippi that killed four crewmembers. Although this accident is still under investigation, the lack of a positive train control system is a safety issue that we will again examine.

In fact, the Safety Board is just finishing the investigation of an Amtrak accident that occurred on this same route on April 6, 2004, about 15 miles away. Although the Amtrak accident involves track related safety issues, the risk of collisions between passenger trains and freight trains on shared routes continues to be of high concern to the Safety Board. The NTSB will deliberate on the Amtrak accident investigation draft report next week—July 26.

Thank you again for the opportunity to testify, and I am available to answer any questions.



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

**Testimony of Paul C. Worley**  
**North Carolina Department of Transportation Rail Division**  
**before the**  
**Committee on Transportation & Infrastructure**  
**Railroads Subcommittee**  
**United States House of Representatives**  
**July 21, 2005**

Chairman LaTourette, Ranking Member Brown, and members of the Committee, I am pleased to have the opportunity today to come before you and discuss highway/railroad at-grade crossing safety issues.

My name is Paul Worley, and I am Assistant Director for Engineering & Safety with the North Carolina Department of Transportation's Rail Division. I serve as a co-chair of the American Association of State Highway and Transportation Officials (AASHTO) Standing Committee on Rail Transportation Safety Task Force and am representing AASHTO at this hearing today. I also serve as a state representative on the Railroad Safety Advisory Committee, the National Committee on Uniform Traffic Control Devices Railroad and Light Rail Transit Highway Grade Crossings Technical Committee and have also served on numerous task forces, committees and working groups involving Federal Highway Administration (FHWA), Federal Railroad Administration (FRA) and the development of policy pertaining to highway-railroad at-grade crossing safety.

AASHTO, through its Standing Committee on Rail Transportation, and its member state departments of transportation remains committed to improving highway-railroad at-grade crossing safety as part of an overall mission to promote the utilization of the rail mode as an important and efficient part of the nation's freight transportation system and investment in a national intercity rail passenger system. It is understood by both the public and private sectors that crossing safety is a critical component of any plans to improve our national rail system, and it remains one area where the rail mode is most vulnerable.

In AASHTO's Intercity Passenger Rail Transportation report, it is noted that rail corridor improvements to create higher-speed and more efficient rail passenger corridors will require separation of highway and railroad traffic through crossing consolidation and elimination, the construction of grade separations and the use of new technology and enhanced devices to raise the level of safety protection at crossings that cannot be closed or grade separated.

At NCDOT, we believe that highway/railroad at-grade crossing safety is a critical component of our

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Testimony of Paul C. Worley, NCDOT  
Committee on Transportation & Infrastructure Railroads Subcommittee  
United States House of Representatives  
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comprehensive proactive rail effort underway in the areas of freight and passenger operations. Under agreement with Amtrak, we operate 2 daily passenger trains. One train is operated with equipment owned by the State. To date, our Department has completed approximately \$30 million in speed and capacity improvements on our core passenger corridor between Raleigh and Charlotte. We also play a lead role in coordinating high-speed rail activities among the southeastern states along the Federally designated Southeast Corridor.

On our Sealed Corridor project, which was the first of its kind in the United States, we took a corridor approach to the testing of new technologies. The Sealed Corridor is a joint effort of the North Carolina Department of Transportation and Norfolk Southern Corporation. This corridor approach is in the spirit of USDOT's Rail-Highway Crossing Action Plan, and was funded through a partnership with the FRA and the FHWA. Federal dollars for safety research and development were supplemented with State matching funds and in-kind services from Norfolk Southern. While providing the majority of the funding, USDOT empowered states and the railroad industry to think "outside the box" and develop solutions that enhance the existing warning devices at crossings and follow through with innovative, clear-minded approaches.

Norfolk Southern's main line between Greensboro and Charlotte over the North Carolina Railroad, is host to high levels of freight traffic, with daily intermodal, unit and mixed merchandise trains connecting the industrial northeast to the heart of the south. In addition, six passenger trains use this route daily. Before the Sealed Corridor was implemented, this route had a high rate of crossing incidents due to the ever-growing highway traffic in the urban areas along the corridor that crosses the tracks at numerous at-grade crossings. From 1987-1999, 125 incidents, involving 56 injuries and 31 fatalities occurred on this corridor.

In 1992, USDOT identified the Raleigh-Greensboro-Charlotte route as one of five nationally designated corridors for State high-speed rail development efforts. Programs authorized under ISTEA and the Next Generation High-Speed Rail contained in TEA-21 provided over \$12 million for safety improvements at 267 public and private crossings along the 173-mile corridor.

This funding was initially used by the North Carolina Department of Transportation and Norfolk Southern to conduct a series of tests that were video monitored.

For twenty weeks, baseline data was collected at the test crossing. Median separators were then installed, followed by 4 quadrant gates, and then finally, 4 quadrant gates with median separators. Using each of these barrier enhancements, the number of gate running incidents was significantly reduced. For example, median separators reduced violations by 77%, 4 quadrant gates reduced violations by 86% and 4 quadrant gates with median separators reduced violations by 98%.

A test second location was chosen to test the effectiveness of a longer gate arm, which resulted in an 84% reduction in violations over the baseline which was also gathered at this location for 20 weeks.

During the test phase of this project, we recorded and viewed over 4,600 actual video events at three different crossings (57 hours), including over 1,831 violations by motorists - commercial, public, and private. What is most shocking about the overall data gathered is that 42 % of motorists **wanted zero seconds** before violating gates – with no intention of stopping at all!

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Considering the success of the tests, it was then decided to expand the project to demonstrate these various barrier devices at crossings on a corridor basis between Raleigh and Charlotte, thus "Sealing the Corridor" from violations. Implementation of this comprehensive corridor approach included evaluation of each public crossing to determine the appropriate treatments, which include:

- Closure and Consolidation of redundant and/or unsafe crossings
- Median Separators
- Longer Gate Arms
- 4 Quadrant Gates
- 4 Quadrant Gates with Medians
- Grade Separations
- Special Signage
- Intelligent Signal Monitoring

In 2001, we initiated the Private Crossing Safety Initiative phase of Sealed Corridor with a study of the 46 remaining private vehicular access crossings on the corridor between Raleigh and Charlotte. Those crossings that are not provided alternate access and closed will be treated with flashers and longer gate arms, STOP and private crossing signs, and manually locking gates. This project is currently underway

To date, we have closed 64 public and private crossings on this corridor, and Federal safety funding and program flexibility has been essential to this effort.

In May 2002, in response to a request accompanying the 2001 USDOT Appropriations Act (Senate Report 107-38), a study was conducted by USDOT to document the benefits of the Sealed Corridor initiative and the improvements completed at highway-rail grade crossings from March 1995 through September 2000 in terms of "Lives Saved." The analysis concluded that five lives were saved during the study period and that this positive benefit of the Sealed Corridor improvements will grow as vehicle volume, train frequency and train speeds increase. USDOT has begun the process to update this study to validate the benefits of the additional crossings treated since 2000. Using a video system that has been installed on the locomotive that pulls our daily passenger train over the corridor, we can monitor conditions daily and are currently reviewing that data as part of a consortium with Norfolk Southern and FRA.

Research and development opportunities, such as FRA's Next Generation High Speed Rail program provided the funding for these initiatives, and was thus critical to the success of these innovative rail safety initiatives. Considering the benefits received through the investment from this program, we believe that the Next Generation High Speed Rail program should be funded and continued.

Other states, including Illinois, Florida, and California have made great strides towards improving at-grade crossing safety by using enhanced devices, such as four-quadrant gates and median separators.

These enhanced devices, have enabled us to improve safety by preventing violators or gate runners. We now have the tools to "raise the bar" for safety and decrease the number of crashes, injuries, and fatalities. We understand the issues surrounding the desires of local governments for quiet zones, and realize this is now a Federal law and regulation as governed by FRA's Locomotive Horn Rule. However, we must respectfully express our concerns with these proven safety enhancements now

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being used to mitigate train horns as a quality of life issue rather than increasing the safety protection at crossings where horns also sound. Once you've figured out how to "raise the bar," for safety we should keep it there and strive for the next step to make crossings even safer.

As a state level manager, I know that as positive as our Sealed Corridor experience has been, there still are issues to be addressed. Our ability to treat at-grade crossings has been limited solely to public crossings except those covered under the Next Generation High Speed Rail grant located on the Federally-designated corridor. Generally, the North Carolina Department of Transportation is not authorized to make improvements at private crossings. There are also limitations to our State's authority at municipal-system crossings. The North Carolina Department of Transportation has closed over 100 crossings statewide since 1992 when FRA suggested a 25% closure goal. While we have more on the way, crossing closure is never easy. Public and political opposition can create difficulties in meeting safety goals.

We know that crossing consolidation and elimination is one of the most cost-effective treatments when it comes to highway-rail at-grade crossing safety and have enjoyed success in collaborating with railroads and local governments in this endeavor. The safest crossing is one that is not there. Elimination of crossings can save capital investment by the local road authority and perpetual maintenance investments by the railroad while rerouting traffic efficiently and safely over an alternate at-grade crossing that is safer or a grade separation of the railroad.

With this in mind, AASHTO has a standing policy resolution supporting the continued dedicated funding of the Section 130 Federal Highway-Rail Grade Crossing Safety Improvement Program. This resolution also supports updating the incentive payment for closing crossings contained in subsection (b) of the Section 130 program from \$7,500 to up to 25% of the estimated cost of proposed signalization. Some signalization projects routinely cost in the area of \$150,000. Our Class I railroads are a willing partner in participating closure incentive payments in lieu of signalization.

We would also like to see our Federal partners at FHWA and FRA take a position to strongly support at-grade crossing consolidation and elimination as a safety alternative where planning and engineering evaluations have shown this to be an effective safety alternative without placing due hardship – not inconvenience – on a community. Also, fewer at-grade crossings means less access to the tracks and thus, a more secure railroad for the transport of people and goods. As we well know, the security of our homeland's infrastructure is paramount, and the Metrolink crash earlier this year in Glendale, California demonstrated what impact a vehicle entering the corridor could have on our rail transportation system.

Speaking of the Federal Highway-Rail Grade Crossing Improvement Program, or Section 130, this has been a most effective transportation safety investment across our country. Since the Highway Safety Act of 1973 created and funded the program, USDOT estimates that the annual grade crossing accident rate has been reduced by over 48 percent since 1994, and has prevented over 10,500 fatalities and 51,000 nonfatal injuries since 1974. It is estimated that the benefit-cost ratio of the Section 130 program is approximately 2:1, or \$2 of net benefits for every \$1 expended. Also consider that a 1991 FHWA study places the total cost to society of an at-grade crossing fatality at \$2.78 million.

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All those numbers being said, this program just makes good business sense. The elimination of highway/railroad crashes, not only saves lives, bodily injury, and property damage, it keeps our railroads and highways moving.

In the AASHTO Freight-Rail Bottom Line Report, grade crossings are recognized as both a safety and capacity issue. While we are aware of the safety issues that are involved with highway-rail at-grade crossings, it should also be noted that multiple at-grade crossings in one area can limit a railroad to minimal speeds. This can cause trains to be delayed or stacked behind one another. The impacts of delays in train schedules can felt up and down key rail freight corridors in our country. Train delay and velocity issues are not just isolated to the rail industry; they impact all businesses and industries that rely on rail to ship their materials and products. This considers the growth of rail and highway traffic across the country, especially in urban areas.

North Carolina, Ohio and other states have taken advantage of the flexibility of Federal optional safety funds over the designated amounts contained in Section 130. In addition to the more traditional approach of using funds for new signal devices at crossings, we are directing these funding sources to corridor projects, including closures as identified in comprehensive engineering studies, the rehabilitation and replacement of obsolete warning devices, and the signalization of crossings on passenger and high-density freight routes.

Through our Board of Transportation, North Carolina has also taken steps to change policies and guidelines regarding highway/railroad intersections. This includes prohibiting new at-grade crossings on designated high speed routes, strongly discouraging crossings on other high-density and passenger rail corridors, encouraging the closure and consolidation of crossings on railroads statewide, and adopting guidelines for when grade separated crossings should be built.

Also, if we are to develop rail passenger and high-density freight corridors, we must build more grade-separated crossings. There is no dedicated funding to undertake such projects, so they must compete with other statewide highway and transportation priorities. The State of Ohio's 10-year Railroad Grade Separation Program, which will provide funding for 30 grade separation projects in that state, includes matching funds in partnership with railroads and local governments. This is a good model that could be applied nationally on the Federal level and should be given consideration.

All this being said, we know that there is still much to do. We must continue our efforts to find more efficient and effective ways to improve crossings for all drivers, including our growing older population. Also, AASHTO continues to support education and enforcement efforts like Operation Lifesaver in all their work to promote crossing safety. While we can enhance the existing warning devices at crossings, it is still the responsibility of the motorist to adhere to laws and good driving practices and always expect a train.

Mr. Chairman, I appreciate the opportunity to provide testimony on these issues. I ask for the continued support of the Subcommittee as we pursue this work, and I again offer our assistance as the Subcommittee considers important railroad safety issues. Thank you.

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For more information on NCDOT rail safety initiatives, visit our web site at:  
<http://www.byrail.org>

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**STATEMENT OF HONORABLE DON YOUNG  
RAIL SUBCOMMITEE HEARING  
RAILROAD GRADE CROSSING SAFETY ISSUES  
July 21, 2005**

**THANK YOU, CHAIRMAN LATOURETTE. I  
COMMEND YOU ON THIS TIMELY HEARING TO  
EXPLORE THE PROGRESS WE HAVE MADE IN  
MAKING OUR RAIL TRANSPORTATION SYSTEM  
SAFER.**

**RAILROAD GRADE CROSSINGS ARE  
GETTING SAFER EVERY YEAR. OVER THE  
PAST TEN YEARS, THE NUMBER OF ANNUAL  
GRADE CROSSING FATALITIES HAS DECLINED  
BY FORTY SIX PERCENT.**

**THIS MAJOR IMPROVEMENT IN SAFETY IS  
DUE TO THE DILIGENT EFFORTS OF THE  
FEDERAL RAILROAD ADMINISTRATION, THE  
ASSOCIATION OF AMERICAN RAILROADS AND  
GROUPS LIKE OPERATION LIFESAVER.**

**LAST YEAR, THERE WERE ONLY THREE  
HUNDRED FIFTY EIGHT (358) GRADE CROSSING  
FATALITIES NATIONWIDE. FROM AN  
HISTORICAL PERSPECTIVE THAT MAY SEEM  
LIKE A LOW NUMBER, BUT EVEN A SINGLE  
GRADE CROSSING FATALITY IS ONE TOO  
MANY.**

**I URGE THE DEPARTMENT OF  
TRANSPORTATION, THE RAIL INDUSTRY AND  
OPERATION LIFESAVER TO REDOUBLE THEIR  
EFFORTS AND BUILD ON THEIR PAST SUCCESS.  
WE HAVE MADE GREAT STRIDES AND SAVED  
MANY LIVES, BUT THERE IS STILL PROGRESS  
TO BE MADE.**

**I VIEW TODAY'S HEARING AS A REAL  
EDUCATIONAL OPPORTUNITY FOR THE  
MEMBERS OF THE SUBCOMMITTEE TO VIEW  
THE STATE OF GRADE CROSSING SAFETY.**

**IN PARTICULAR, I WANT TO WELCOME JOE  
BOARDMAN, THE NEWLY APPOINTED  
ADMINISTRATOR OF THE FEDERAL RAILROAD  
ADMINISTRATION. I LOOK FORWARD  
HEARING HIS PLANS TO IMPROVE RAILROAD  
GRADE CROSSING SAFETY.**

**THANK YOU AGAIN, MR. CHAIRMAN, FOR  
ARRANGING WHAT I AM SURE WILL BE A VERY  
INFORMATIVE HEARING.**

